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GRAY HERBARIUM
OF
HARVARD UNIVERSITY

GIFT OF
WALTER DEANE
OF CAMBRIDGE
CLASS OF 1870

17 June, 1918

Public Document No. 48

REPORT

OF THE

BOARD OF METROPOLITAN PARK COMMISSIONERS.

JANUARY, 1908.

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OFFICERS.

Commissioners.

WILLIAM B. DE LAS CASAS, *Chairman.*

EDWIN U. CURTIS. DAVID N. SKILLINGS.

ELLERTON P. WHITNEY. EVERETT C. BENTON.

Landscape Architects.

Advisory.

OLMSTED BROTHERS.

Engineer.

JOHN R. RABLIN.

Law and Claims.

GEORGE LYMAN ROGERS.

Secretary.

JOHN WOODBURY.

OFFICES, 14 Beacon Street, Boston, Mass.

Commonwealth of Massachusetts.

REPORT.

The Metropolitan Park Commission presents herewith its fifteenth annual report.

The work of the past year has proceeded along the same lines as in previous years. The reservations and parkways have been administered and cared for, and temporary or incidental improvements have been made out of the annual appropriation provided for that purpose and included in the State tax for the year. Extensions of holdings and of permanent development and construction have been continued, and charged against appropriations made in 1903 as additions to Metropolitan Parks Loan and to Metropolitan Parks Loan, Series II.

The area of the reservations and parkways in the care of this Board remain substantially the same as at the time of its last report. The only important change is in the acquirement of the land known as Rufe's Hummock at Quincy Shore, which, although acquired as part of Furnace Brook Parkway, makes in effect an extension of Quincy Shore Reservation to Black's Creek. The number of claims arising out of all acquirements made up to the time of this report has been somewhat reduced, and the total value appears, from the awards and estimates made by the Board, to be, on Dec. 1, 1907, $16,237.96 against the Parks Loan and $24,533.11 against the Parks Loan, Series II. These claims are thought to be fully provided for by the sum reserved from present funds for that purpose.

A large amount of construction work has been carried on during the past year. The more important is as follows: —

The driveway along Lynn Shore has been completed from Red Rock westerly to Nahant Beach in similar form to the portion of the same Parkway previously completed from Red Rock easterly to the Soldiers' Monument in Swampscott. Its connection with the Nahant Road now makes available to the public an oceanside park and driveway of nearly five miles in length, which may be justly regarded as the most superb of its kind in this country. A bridle path parallel to the Nahant Road has also been built. At Quincy Shore a connection from Atlantic has been constructed, and the driveway along the shore has been practically completed as far as Rufe's Hummock. It will provide a greatly desired and attractive shore drive south of Boston along a portion of the coast hitherto difficult of access, and but little known to the people of the District generally. A portion of the proposed parkway between Middlesex Fells and Lynn Woods, to be called Lynn Fells Parkway, has been acquired from the Fells to Green Street in Melrose, and has been subgraded as far as Main Street, and surfaced and opened to the public as far as Tremont Street. Work on Mystic River has made substantial advance during the past year. Much of the dredging required by the State Board of Health to increase the storage capacity of the river has been completed; a bridge under the southern division of the Boston & Maine Railroad has been built; Auburn Street across the reservation has been surfaced and a part of the dam and lock and extra span to the bridge has been built. An extension of Fellsway West to provide a proper route for electric cars to Middlesex Fells has been begun. Other minor work has been done, the most important of which is the resurfacing of County Road at Nantasket, the rebuilding of a portion of Main Street in Stoneham and the building of a border road in Blue Hills between Randolph Avenue and Forest Street. Several woods roads in the Blue Hills and Middlesex Fells have been repaired or resurfaced. Full details of all acquirements may be found in the reports of the Secretary and Engineer transmitted herewith.

LYNN SHORE RESERVATION. — Sea Wall and Driveway.

The funds for the acquirement and development of the Park System have been provided by loans combined and classified as Metropolitan Parks Loan, Metropolitan Parks Loan, Series II., and Nantasket Beach Loan. These loans are represented by forty-year bonds issued by the Commonwealth, to be repaid from sinking funds made up of annual payments by the cities and towns of the Metropolitan Parks District, except that one-half of Metropolitan Parks Loan, Series II., is to be repaid from a sinking fund made up of annual payments by the entire State. The annual payments to these sinking funds are made according to a table of percentages fixed by the Supreme Court upon report of a special Commission appointed for that purpose, and revised each five years by a new Commission appointed by it to review the matter. The interest and the portion of the sinking fund to be paid by the entire State, and the appropriation for care and maintenance for each year, are provided according to the same percentages by the State tax for the year. Details of the amount and condition of the loans and the appropriation for care and maintenance on Dec. 1, 1907, are given in the Secretary's report. The condition of the loans may be briefly summarized here as follows: —

Metropolitan Parks Loan: —	
Appropriations and receipts,	$8,963,334 01
Expenditures,	8,597,047 01
Balance in hands of State Treasurer,	$366,287 00
Metropolitan Parks Loan, Series II.: —	
Appropriations and receipts,	$5,114,907 41
Expenditures,	4,641,459 86
Balance in hands of State Treasurer,	$473,447 55
Nantasket Beach Loan: —	
Appropriations and receipts,	$705,881 50
Expenditures,	705,881 50

The entire amount of these balances is required for the completion of work already entered upon.

The Metropolitan Parks were begun in 1893, upon the adoption of a report made that year by a special Commission

which had been appointed the previous year as a preliminary Metropolitan Park Commission. The plan accompanying the report of the preliminary Commission, although somewhat modified by new circumstances and by the working out of details from year to year, has been adhered to with great fidelity, as constituting the plan for a Metropolitan Park System to the gradual accomplishment of which the Commonwealth and the District had committed itself. The initial legislation was chapter 407 of the Acts of 1893, which established the District and the Commission, and defined the latter's authority. This act and certain amendatory acts are known as the Park Acts, and the portions of the system referred to as parks or reservations have been acquired and cared for under them. In 1894 it became apparent that certain portions of the system would have more of the character of parkways or boulevards than parks or reservations, and would have to be administered somewhat differently; provision was therefore made for acquiring and caring for them under a special act, chapter 288 of the Acts of 1894. This and certain amendatory acts have since been known as the Boulevard Acts. The acquirement and maintenance of Nantasket Beach was provided for by a special act, chapter 464 of 1899, which differs from the Park Acts in that it apportions the cost of work done under it upon the Parks District with the town of Cohasset added, and creates a separate loan and sinking fund therefor.

The first appropriation for the use of the Board was general in form, and left the expenditure to the discretion of the Board; and this policy has been generally followed in all subsequent appropriations. The purpose of all the appropriations has been well known, however, from the public hearings and debate by the Legislature, and the purpose thus expressed has been followed as closely as possible by the Board in its expenditures. No direct appeals or efforts to secure appropriations have been made by the Board, but its reports have been confined to explaining the plan for the system and the extent to which it was being accomplished, and the advisability of following the plan so that all acquirements and construction might be a gradual accomplishment of a complete

and systematic park and boulevard development for the entire District. The appropriations almost without exception have been made upon petition and argument of such citizens as have been interested in urging the accomplishment of some particular portion of the system. The woods reservations, Blue Hills and Middlesex Fells were first acquired; then Revere Beach and the banks of the lower Charles River; then West Roxbury Parkway and Stony Brook Woods; then Middlesex Fells Parkway, Mystic Valley Parkway and Blue Hills Parkway; and so on, until by far the larger part of lands for the entire system have now been secured. In a similar way appropriations from year to year have provided for enough development to meet present needs in the woods reservations, and more permanent development of the river and beach reservations and of the parkways and boulevards.

In 1903 a careful review of the entire situation was made, and after an extended hearing and reports upon all petitions and bills before its committees the Legislature decided to provide for a gradual continuation of the work of completing the system. For that purpose appropriations for settlement of existing land claims and to provide for completing construction then under way were made as additions to the Parks Loan and to the Parks Loan, Series II., to become available to the amount of $300,000 each year under each of these loans for the ensuing four years. The period thus provided for has now elapsed, and with the completion of work now under way the Board will have expended the entire amount of the appropriation made in 1903. The result is apparent in the present condition of the Metropolitan Park System. The details of what has been done in each year are found in the report of the Board for the year, and are briefly summarized as follows: —

In 1903 Mattapan Bridge and Wellington Bridge were completed. Revere Beach has since been completed to the Point of Pines; Quincy Shore Driveway has been built to a width sufficient for the present needs from Moswetusset Hummock to Rufe's Hummock; and an approach has been built from Atlantic across land given in large part by Mrs. Hannah C. Pope. The land necessary to complete ownership of

King's Beach and Lynn Shore from the monument in Swampscott to the Nahant line has been acquired, including the superb Red Rock; and a sea wall driveway and promenades have been built along the entire distance. A beautiful and commodious bathhouse has been built close by the Nahant-Lynn line; a new road has been built behind the bath-house, to provide for heavy traffic; and the portion of the old Nahant road in front of the bath-house has been relocated and improved, to provide for a subway from the bath-house to the beach and to connect with Lynn Shore and the Nahant Driveway. Revere Beach Parkway has been completed from Revere Beach to Fellsway to the extent required for present needs. Land has been secured for a short parkway between Charles Eliot Circle, Revere Beach and the shore at Beachmont. The changes in Fellsway to conform to the new Wellington Bridge have been completed, and the change in Fellsway West to provide for an electric car track in Middlesex Fells is now under way. A portion of the Parkway from Middlesex Fells to Lynn Woods has been acquired, and its construction is partially completed. Blue Hills Parkway and its extension as Unquity Road has been constructed in a form suitable for the needs for many years, to come from Canton Avenue to Harland Street. Furnace Brook Parkway has been constructed from Adams Street to Blue Hills, providing a much-needed entrance to new roads at that end of the reservation. The historic Dorothy Q. estate has been acquired as an addition to the parkway lands, by the aid of a contribution from the Society of Colonial Dames; and the house has been transferred to that society, to be used, subject to regulation by this Board, as a public museum. Most of the land necessary for an extension of the same parkway along Black's Creek and Quincy Shore to an extension with the Quincy Shore Driveway has been acquired. Land for Neponset River Parkway from Paul's Bridge to Blue Hills has been acquired, in continuation of the proposed parkway extension of the Boston Park System from the Arboretum by West Roxbury Parkway and Stony Brook Reservation. One road of this parkway has been constructed from Paul's Bridge to Blue Hill Avenue, and a location granted for electric cars.

A public car station and a refectory have been built at the foot of Great Blue Hill. A path has been built around the top of the hill, and water carried to the top. A police station, with emergency room and other small buildings for administration purposes, has been built, and a police signal system established for the Blue Hills Division. Charles River Road has been built in Watertown, and changes of line have been secured and contributions of land and money made to assist the town of Watertown in so relocating Galen Street and extending Mount Auburn Street and building a new stone bridge across the river as to accommodate both highway and park travel. Land has been secured by transfer without cost from the United States Government for a continuation of Charles River Road along the river front of the Arsenal Grounds, and the subgrading of the road has been completed and the surfacing is provided for, and will be done when the river level is fixed by the completion of the dam at Craigie Bridge. The stables and administration buildings of the Speedway have been enlarged. On the upper river a new building has been provided for headquarters, police station, boat house and emergency room. A new dam has been built at Newton Lower Falls, and a new bridge and dams at Boylston Street, Newton Upper Falls. Substantial progress has been made in the work at Mystic River. Various circumstances, however, have occurred to cause delay and some change in plans, and consequent additional expense. The plan at first contemplated merely the construction of a driveway along the river bank and a dam or tide gate at some convenient point above Cradock Bridge, and estimates and reserve of funds were made accordingly. The fact that the cities of Cambridge and Somerville and the towns of Arlington and Belmont were planning to attempt the sanitation of Alewife Brook, a tributary of Mystic River, under special authority of the Legislature, suggested the possibility of a combination of work which would avoid conflict of plans and duplication of expenses, and secure a comprehensive and consistent plan for the work of the entire region, and also provide land for the often-suggested parkway between Mystic Valley Parkway and Fresh Pond and Charles River. The

result was a series of conferences and investigations, and the development of a seemingly perfect plan, which has been already so far sanctioned by the Legislature that authority has been given to the Board, upon approval of its plans by the cities and towns mentioned, to do the work necessary to the sanitation of Alewife Brook at the expense of the cities and towns to the amount of $125,000, which is the estimated cost above the land. The cities and towns are understood to be ready to approve these plans if the Board will secure the necessary land and enough more to provide a location for the proposed parkway. The delay in perfecting all these arrangements, and the draft upon the funds of the Board to meet the changed conditions of increased cost of labor and materials and the somewhat increased amount of work required upon Mystic River have so far reduced the balance now available that it is feared that the land cannot be acquired unless $50,000 additional parkway funds are provided; and it seems certain that the surfacing of the driveway along Mystic River cannot be completed unless $25,000 more is provided as an addition to the Park Loan. The present opportunity is so favorable and the result to be obtained by present coöperation of the cities and towns is one of so much more value to the District than in the case of any merely parkway project that it is very much to be hoped that immediate action may be possible. The Board recommends that provision be made for both of these matters, as necessary for the completion of work already authorized and entered upon.

For one other matter alone the Board asks appropriation at this time. The bath-house at Nantasket needs improvement in the laundry and an enlargement for which plans have been prepared, which will provide, with practically no increased cost for maintenance, the accommodations needed for the more crowded days of summer. The cost of the proposed improvement and enlargement is $15,000. The money for this reservation has always been provided by a special loan, the Nantasket Beach Loan. There has been no addition to this loan since 1901, and there has been no balance available under this loan for several years. The Board asks that

$15,000, the cost of the desired improvement and enlargement, be provided at this time.

The care and maintenance of the reservations have presented no serious new problems or matters calling for special comment except those relating to the repair and maintenance of the road surface of the parkways and of the roads through the reservations which are used by automobiles. Experiments with various methods of treating road surfaces have been made, and experience seems to be accumulating to an extent sufficient to show that tarvia is best for macadam surfaces, both as a preservative and as a dust layer, and that oil is best in some form or other as a preservative and dust layer for gravelled roads. Experience is also raising some doubt as to whether the macadam road as heretofore constructed is as well able to withstand the wear of automobiles as some other forms of construction. The tarvia has been applied to about 5 miles of macadam road, making a total of 8½ miles on which it is now used in the park system. Oil in various forms has been applied to 15 miles of roadway during the past year. All statistics as to cost are somewhat misleading because of the various prices of oil and labor. Details of the work of the past year are given herewith in the Engineer's accompanying report.

A special appropriation of $15,000 for band concerts was first made in 1906. In 1907 another special appropriation of $25,000 was made. This amount provided for concerts at Revere, Nahant Beach and Nantasket, as in the previous year, and also for occasional concerts at Riverside, Speedway, Waltham, Blue Hills, Mystic Valley Parkway, Fellsway and Beaver Brook. These concerts undoubtedly gave great pleasure to many people. The hearers were always orderly and seemingly appreciative.

The work against the gypsy and brown-tail moth was well provided for by the appropriation for 1907, and the work has been more thoroughly done than ever before. A somewhat decreased appropriation is asked for the coming year, and it is hoped will be granted as asked for. The progress in reducing these pests to the point where they may be easily

controlled each year must be continued, and it is economy to continue it now without any let-up. In Middlesex Fells the situation is one of such distinct improvement as to cause great satisfaction, and the time seems to be approaching when the underbrush may again be allowed to come back more thickly than has been possible in the past few years, and even that it should be increased by planting the various flowering and otherwise interesting shrubs that had disappeared even before the fight against the gypsy moth was done. The tree growth is now in a better condition generally than at any time since the reservation came into public ownership, and the woods have a generally sound and healthy look. The only exception is found in the condition of the pine trees at certain points, which seem to be badly affected by something which causes the appearance of rust in the foliage and gradually kills the trees. Thus far the tree experts have been unable to agree whether this is due to a disease or to some adverse climatic conditions.

For several years the question of granting locations for electric cars through Fellsway and the Middlesex Fells has been under consideration. Many difficulties have presented themselves, but these have been gradually eliminated or overcome; and during 1907 a location has been granted to the Boston Elevated Railway Company for a location from Mystic Avenue in Somerville through Fellsway and Fellsway West and an extension to a point in the Fells nearly opposite Elm Street, Medford, and in a reserve space protected by fencing within the reservation on a line substantially parallel with the highway as far as the Stoneham line. Great care has been taken to arrange the details of location, construction and operation in such way as to safeguard the public in their use of the reservation and roads. The tracks will be wholly within reserved spaces free from grade crossing of woods roads and fenced when running through the woods. The matter of a further location from the Stoneham-Medford line in continuation of that of the elevated is under consideration upon petition of the Boston & Northern, and will undoubtedly be acted upon in the near future.

QUINCY SHORE RESERVATION. — Driveway and Beach.

The Board has no recommendations to make as to additional legislation or appropriations except those which have already been made in this report. The annual maintenance expenses must be slightly increased each year, as new parkways and other features of construction are completed and opened to public use; and occasional items of special expense, such as the work against the gypsy and brown-tail moth, will present themselves from time to time. The time has come also when adequate forestry and improvement in the variety and character of shrub and plant growth in the wooded reservations and care of the trees along the parkways ought to be systematized and more adequately provided for. In the near future some method must be devised by which better sidewalks may be provided along the parkways, and contribution required from the abutting owners. At present those who use the roadways are better provided for than those who use the sidewalks.

It must not, however, be gathered from the absence of recommendations for further expenditures that the entire Metropolitan Park System has been completed, either as to acquirements or as to construction. Reference to the plan indicated upon the map of the District published with the report of the Board for 1903 will show what the entire system has been planned to include; and the report for that year and the various subsequent reports, annual and special, including this report and plan annexed, make clear what has already been accomplished and what remains to be accomplished. The completion of each portion of the Parkway System makes more apparent the relation of each to the entire system, and the interruption and lack of completeness occasioned by the omission of any part of the system. It is not, therefore, from any change of view as to the desirability of providing all that has been recommended in the past, but a realization of the rapidity with which the work has progressed and taxation increased to the District, that deters the Board from urging further appropriation at this time. Various arguments to show the small cost of what has been accomplished in comparison with the work which cities and towns have done

after the growth of population has made the lands more expensive, and to show that people of one section taxed to provide parkways in another section may with claim of right urge the completion of work in their own neighborhood, may safely be left to the citizens of the district. It is enough for the Board to present the plan and the facts relating to it. The facts as to each are in general the same as those stated in the past, except perhaps in the case of the suggested parkway between Fellsway and Charles River, through Somerville and Cambridge, which has always been proposed as a special matter to be considered by itself and upon its individual merits, having been specifically reported upon by direction of the Legislature. In the case of this parkway there will probably be an economy in determining as soon as may be whether any action is to be taken, because the length of time which has elapsed since the plan was first proposed and the complicated nature of the problem involved in locating a parkway in such crowded districts will require long and careful new study of the problems before actual location and acquirements can be made, and because at the present time it is understood that plans are well advanced to provide for a separation of grade between the Fitchburg Railroad and the streets of Somerville. The matter of crossing the Fitchburg Railroad by the suggested parkway will always be one of considerable expense and nicety of adjustment, and ought to be considered at the time when the plan for a general separation of crossings is being provided for.

During the past year two deaths have occurred among those who had been long connected with the Board. Edwin B. Haskell was a member of the Board from Dec. 13, 1895, until his death, March 25, 1907, during which time he brought to the work an interest as constant and deep as that which might be expected in a personal project, and an experience broad and ripened by years of practical work, reading and travel. Abraham L. Richards was a member of the Board from its organization in 1893 until March, 1898, when he resigned to devote all his time to its service as Supervisor of Construction. From this position he resigned on

account of ill health, Oct. 10, 1906. During this long connection with the Board and its work Mr. Richards was constant and painstaking in attendance, watchful of its interests and helpful with his fund of practical experience.

All of which is respectfully submitted,

WILLIAM B. DE LAS CASAS.
EDWIN U. CURTIS.
DAVID N. SKILLINGS.
ELLERTON P. WHITNEY.
EVERETT C. BENTON.

DEC. 11, 1907.

REPORT OF THE SECRETARY.

Hon. WILLIAM B. DE LAS CASAS, *Chairman Metropolitan Park Commission.*

SIR: — I herewith present my report for the year ending Dec. 1, 1907. It is subdivided as follows: 1. Acquirement of lands. 2. Administration. 3. Miscellaneous. 4. Finance.

1. ACQUIREMENT OF LANDS.

The Commission has secured by purchase from the five owners Rufe's Hummock, so called, at the southerly end of Quincy Shore Reservation. This parcel is required for the connection of Quincy Shore with Furnace Brook Parkway by a route following the line of Black's Creek. A lot was also purchased at the corner of Cross Street and Furnace Brook Parkway in Quincy for a police substation. The owners of a portion of Malden Street in West Quincy at its junction with Furnace Brook Parkway released their rights without charge, in order that this portion of the street might be in the care and control of the Commission as a part of the Parkway.

A parcel of unoccupied land at the junction of Wicklow Street and the Middlesex Fells Parkway adjacent to the Malden-Medford line was purchased in order to improve the lines of the location of the Boston Elevated Railway Company, now in course of construction. The cost of the additional land required and of the new construction was paid by the Railway Company. At the easterly corner of Fellsway East and Pleasant Streets in Malden a small parcel of land and restrictions were obtained, which will result in the improvement of the steep and hitherto rather unsightly bank at this point.

At the point where the Lynn Fells Parkway crosses under the Western Division of the Boston & Maine Railroad in Melrose it was found necessary to acquire portions of Vinton

Street and other highways in order to adapt the grades to the new conditions.

At the foot of Washington Street in Lynn a portion of the highway has been incorporated in Nahant Beach Parkway at its junction with Lynn Shore Drive. Several parcels of land acquired in connection with purchases for Lynn Shore Reservation have been sold or used as part consideration in settling with owners whose land had been taken for the driveway.

In Waltham a parcel adjoining the plant of the Waltham Watch Company was conveyed to that company upon restrictions which will improve and protect the banks of Charles River. Conveyance was also made to the city of Newton to adapt the lines of the highway to the approach to the new concrete bridge across the river at Concord Street recently built by the city of Newton and the town of Weston.

In Revere a small parcel of land not required for the construction of Winthrop Parkway was conveyed to the adjoining owner in part settlement for land taken from him for the Parkway.

These changes have not materially altered the areas of the reservations and parkways, as will be seen from the table herewith presented.

2. Administration.

No change has been made in the methods of administration, which have been fully described in previous reports. The general offices and Engineering Department continue to be located at 14 Beacon Street, in Boston.

Landscape Architects.

The advice of the Landscape Architects, Messrs. Olmsted Brothers, has been obtained from time to time, and their report, printed herewith, gives the details upon the matters in which their services have been required.

Engineering Department.

Several works of construction which were under way at the time of the last report have been completed. The improvement of the remaining section of Lynn Shore Reserva-

tion from Red Rock in Lynn to Nahant Beach Parkway is finished, with the exception of sections of the iron fence along the wall. The work included the extension of Lynn Shore Drive, and for the greater portion of the distance the building of a concrete sea wall of the same design as that already built along King's Beach and around Red Rock. The two concrete bridges across the Mystic River in Medford, one at Auburn Street and the other in the rear of the Armory, are finished, and the steel and concrete bridge carrying the Southern Division of the Boston & Maine Railroad over the Mystic River Drive is nearly done. A beginning has been made on the dam at Cradock Bridge and on the additional span to the bridge rendered necessary by this improvement. Further dredging of the river itself has been carried on in accordance with the plan approved by the State Board of Health. Auburn Street in its new location across the Mystic River Reservation has been completed with a macadam surface. At Newton Upper Falls, Boylston Street, where it crosses the bridge built by the Park Commission over the Charles River, has been surfaced. In Watertown the continuation of Charles River Road through the Watertown Arsenal grounds has been built to subgrade. The surfacing has necessarily been postponed until the completion of the Charles River Dam, and the establishment of a fixed water level. The drive along Quincy Shore from the National Sailors' Home to Atlantic Street was built to subgrade last year, and this year the surfacing has been substantially completed. This road should be ready for use early next spring. Furnace Brook Parkway from Blue Hills Reservation to Adams Street in Quincy was completed and opened to public use on January 5. Lynn Fells Parkway from Middlesex Fells Reservation to Tremont Street in Melrose is nearly completed, and portions of it will be opened to public use this winter. This included the building of a steel bridge with concrete abutments to carry the Western Division of the Boston & Maine Railroad over the parkway. The work of filling to subgrade through Ell Pond Park will continue as the weather permits.

The extension of Fellsway West in Medford from Forest to Elm streets is under way in connection with the building of the roadbed of the Boston Elevated Street Railway to the Stoneham line. In Nahant Beach Parkway a bridle path has been built along the crest of the beach beginning near the bath-house and ending near Little Nahant. It is 12 feet wide and 1.59 miles in length. Some work has also been required to adapt the lines of this parkway to its meeting with the Lynn Shore Drive at Oceanside adjacent to the Lynn-Nahant line.

A very considerable amount of work has been required of the Engineering Department in connection with the proposed plans for the purification of the Alewife Brook district in Cambridge, Somerville, Arlington and Belmont, in accordance with the acts of the Legislature and the report of the State Board of Health on that subject.

Interesting experiments have been conducted by the Engineer of the Commission in methods of treatment of roads with tar, oil and other preparations, designed to protect the surface against excessive wear, especially from their large use by automobiles.

During the past year the duties of Supervisor of Construction have been performed by the Engineer, and he has had the oversight of all road repairs and other works of construction in the various divisions, to which reference is made under the proper heads.

Several surveys of importance have been made, and there has been the usual inspection of bridges, oversight of permits and other routine work conducted by this department.

Law and Claims Department.

The policy of the Commission in acquiring lands so far as possible by purchase in advance of taking, or only after satisfactory options have been obtained, has been continued, with the result that but few new liabilities for land have been created. This work has been carried on by this department under instructions from the Commission. Satisfactory progress has also been made during the year in disposing of

outstanding claims. Those remaining to be settled are estimated to amount to $40,771.07, of which $16,237.96 is for lands taken for reservations and $24,533.11 for land taken for parkways. They are divided among the different reservations and parkways as follows: —

Reservations: Charles River, 16; Neponset River, 8; Mystic River, 4; Quincy Shore, 1; Lynn Shore, 2; Blue Hills, 1; Middlesex Fells, 1; Stony Brook, 1; Revere Beach, 2. Parkways: Revere Beach, 4; Winthrop, 2; Middlesex Fells, 15; Lynn Fells, 4; Furnace Brook, 6.

This department has been called upon more frequently than ever for the preparation of contracts, agreements and other papers of legal character, advice on various matters, and under the direction of the Attorney-General has represented the Commission in court in certain classes of cases.

Superintendence.

The reservations and parkways are grouped in the following seven divisions: Blue Hills Division, Middlesex Fells Division, Revere Beach Division, Riverside Division, Speedway Division, Beaver Brook Division and Nantasket Beach Division. Each division is in charge of a division superintendent, who reports to the Commission through the Secretary, and is also expected to keep in touch with the subcommittee of the Commission on his division. Superintendents are also chiefs of police for their respective divisions. The Metropolitan Park Police Force is composed, in addition to the superintendents, of 1 lieutenant, 8 sergeants and about 88 patrolmen. They are assigned to the various divisions according to the seasons, many more being required at the beaches in the summer than in the winter. During the winter months, when the entire number is not needed for police duty, a portion of the force is given suitable work, in order that the number may be kept intact. The men are also given military drill, and are instructed in the use of the revolver. The Commission last winter arranged for a series of lectures to be given to the police, with practical demonstrations of what is generally known as "first aid" or "emergency" work. An examination at the end of the lectures

MIDDLESEX FELLS RESERVATION. — Concrete Seat.

MYSTIC VALLEY PARKWAY. — Band Stand and Shelter.

indicated that careful attention had been given to the lectures, and that efficiency of the police in case of accident had been increased.

BLUE HILLS DIVISION: BARTHOLOMEW J. COSTELLO, *Superintendent.*

In the Blue Hills Reservation a section of boundary road from Forest Street to Randolph Avenue in Milton, .40 mile in length, has been built by the forces employed on the reservation under the supervision of the Engineer. Hillside Street has been resurfaced. Several bridle paths were cut out in the easterly part of the reservation. Sixty-five thousand pine seedlings and three thousand hemlock seedlings were planted. The locations of gypsy moth colonies discovered last year were carefully treated, new nests were creosoted as soon as found, and all known precautions taken to prevent further infestation. Only a few new colonies were found, and it seems possible, if the present precautionary measures are continued, to prevent the moth from obtaining a serious hold upon the woods of this reservation. The most serious danger probably is the spread of the moth from some adjoining piece of woodland the care of which has been neglected. A band stand was built at the foot of Great Blue Hill. The use of the reservation by the public steadily increases, and the variety of the walks and rides are becoming better known each year.

The Stony Brook Reservation is peculiarly exposed to the danger of infestation from the gypsy moth, on account of the long northerly and southerly boundaries which pass through large areas of private woodland in which little if any preventive work has been carried on. A considerable number of colonies were found in the reservation, which have been thoroughly treated. More extensive work seems likely to be required the coming year, in order that the moth may not be allowed to obtain a foothold in this densely wooded park. Turtle Pond and Bold Knob roads have been resurfaced, and ten thousand pine seedlings and two thousand hemlock seedlings have been planted in various parts of the reservation.

In Neponset River Reservation the banks have been kept clean and considerable care given to the trees. Both gypsy

and brown-tail moths were found in considerable quantities in the lower section of the river in Boston and Milton, and the usual precautions against further damage were taken.

Although the work of construction on Quincy Shore was not completed, it was much visited and required considerable care. The beach was cleaned from time to time and policed. Fences were built where required by the fill of the driveway. A temporary landing was located near Appleton Street. The two local yacht clubs already have their club houses and wharves at the foot of Beach Street under leases from the Commonwealth. Satisfactory arrangements have been made with the city of Quincy for changes in the grade of Beach Street at its entrance into the reservation, and the construction will be begun as early in the spring as the weather permits.

The trees in Blue Hills Parkway have been protected against the moth. The roadways have had the usual care, and speeding on the snow has been permitted on the portion of the easterly roadway adjacent to Canton Avenue at stated times. A police substation has been built near Mattapan Bridge.

Furnace Brook Parkway from Blue Hills Reservation to Adams Street was opened to public use on January 5. A police substation has been built at the corner of Cross Street, and the Blue Hills police signal system extended to the end of the finished parkway. The parkway trees have been planted and some grading done on street entrances. An agreement has been made with the city of Quincy by which Crescent Street will be extended from its present dead end at the parkway to Copeland Street. The necessary land was purchased by the Commonwealth and will be conveyed to the city for a public highway, the Commonwealth contributing to the cost of construction. This arrangement was concluded so late in the year that the city found it necessary to postpone construction until next spring. The channel of Furnace Brook has been cleaned where it passes along by the old Quincy House.

In the Neponset River Parkway a fence was built around Hemenway Pond and considerable care given to the parkway trees.

MIDDLESEX FELLS DIVISION: CHARLES P. PRICE, *Superintendent.*

The work done in the Middlesex Fells Reservation toward suppression of the gypsy moth for the past two years has been very extensive, and the results at the present time are most encouraging. Funds for this work were available so that it was possible to begin in the fall the work of creosoting the nests left from the previous summer. Beginning with a band around the boundary, the work was gradually pushed into the interior of the reservation until in April the entire area had been covered. In the same month began the application of tanglefoot bands to prevent the caterpillars hatched on the ground from reaching the foliage. The renewal and tending of the bands was continued into July. At about this time some spraying was done, especially at points where there was danger of the caterpillars spreading from adjoining lands. During the winter, spring and early summer a considerable amount of forestry work, consisting of the removal of trees and brush and sprout growth, was carried on under expert supervision in continuation of the policy of the preceding year, to reduce the amount of the forest growth to be cared for by removing the worthless trees and such as the best opinion decided was not essential to the integrity of the Fells. Great care was taken to avoid spreading the pest in removing the wood from the forest, and the cut underbrush was burned at suitable times. The result of all this work was most surprising. The superintendent reports that no tree of over three inches in diameter in the whole area of between two and three thousand acres was completely defoliated. The work required the coming year will be equally extensive in area, but what has been accomplished both in reducing the number of the moth nests and in the number of trees to be treated will both simplify the problem and materially reduce the expense.

The portion of Main Street between the road to Bear Hill and South Street in Stoneham has been rebuilt and given a macadam surface. Several miles of interior roads have been resurfaced with gravel. The road between the south and east dams of the lower Winchester Reservoir has been widened

in several places and many repairs made. The Wyman Tower in the Winchester section was condemned as unsafe, and has been taken down. A considerable number of wooden bridges have been replaced by concrete culverts, and seats of the same material have been made after a design of the superintendent and placed at different points in the reservation. At the headquarters building the collection of animals and small mammals has continued to bring a large number of visitors. The ducks and other water fowl, which are kept during the summer in Dark Hollow Pond, have also furnished much amusement especially to children. The flock of sheep has steadily improved in quality, and sales therefrom have materially contributed to the cost of its support. Premiums were awarded for five sheep exhibited at the Brockton Fair. During last winter seventy feeding stations for birds were maintained in different parts of the reservation. The nursery for shrubs has been continued at headquarters, and several thousand young plants were added during the year.

In the lands taken for the Mystic River Reservation the only work of importance has been the protection of the trees against the gypsy moth.

The entire surface of the roadways of Middlesex Fells Parkway was treated either with tarvia or emulsions of oil or oil and tar. The details of these experiments are given in the report of the Engineer. At Fellsmere Park a beach was constructed at the northeast corner of the pond. A band stand was built, cement seats placed at various points and grading and improvements made at the Vista Street entrance. Fellsmere Pond was cleared for skating in the winter, and a portion of the northerly road of Fellsway West was used for speeding on the snow. The Boston Elevated Street Railway Company began the construction of its new line to the Middlesex Fells last summer, and had laid its rails from Mystic Avenue in Somerville across Wellington Bridge to Malden Street in Medford when the weather was no longer suitable for such work. It is expected that the work will begin again in the spring, and that next season will see the line carried to its end at the Medford-Stoneham boundary

at the southern end of Spot Pond. The petition of the Boston & Northern Street Railway Company for a location from the terminus of the Elevated tracks through the Fells to the northern limit of the Fells at the junction of Main and South streets in Stoneham is at present under consideration by the Commission. In connection with the work of the Elevated Railway, the draw of Wellington Bridge has been replanked and other repairs made to this bridge. The draw has been opened one hundred and seventy-seven times. By the rules of the War Department of the United States, provision must be made for the opening of the draw at all times of the day and night, regardless of the state of the tide. The effect of the so-called eight-hour law was in the opinion of the Commission to require a larger number of attendants for this purpose than the necessities of commerce on the river required. The Commission, therefore, requested, both as to this drawbridge and to others in their charge where similar conditions existed, that regulations be made limiting the hours of opening, but has not succeeded in obtaining the necessary permission from the United States authorities.

In Mystic Valley Parkway the entrance into Bacon Street on the westerly side of the river has been improved by a change in alignment. The town of Winchester has also made improvements in the portion of Bacon Street which lies between the two roadways of this parkway. The entire park road was treated with an emulsion of oil and tar, which successfully held down the dust and appeared to give satisfactory results. On Manchester Field, in Winchester, a band stand was built which can also be used as a shelter when needed for that purpose. Cement seats of the kind described above have been placed along the parkway in suitable locations. A canoe landing has been built of concrete near Walnut Street in Winchester. Two small bath-houses were built at one of the beaches on Mystic Lake for the use of boys and girls under fourteen years of age. This arrangement proved to be exceedingly popular, and on pleasant days during the bathing season the beach was crowded. Bathing was allowed afternoons, excepting Sunday, between the hours of 2 and 5

o'clock. A police officer was detailed to look after the children, and no accident occurred. The bath-houses were used by over 5,000 children.

REVERE BEACH DIVISION: HERBERT W. WEST, *Superintendent.*

The driveway in the Revere Beach Reservation was treated with tarvia from Charles Eliot Circle to Revere Street, and from that point northerly for about a mile with asphaltoline. The result so far as the comfort of the public was concerned was very satisfactory, and the effect upon the road will be carefully observed. By permission of the owners the drifting sand on land adjoining the northern end of the driveway was given a slight covering of loam and seeded, thereby saving a considerable expense in removing from the driveway the sand which was found to come upon it during the prevalence of strong westerly winds. An additional life boat was located on the beach at the foot of Revere Street, and a small building for a life-saving station was placed at the foot of Shirley Avenue, and was cared for during the summer by a branch of the United States Volunteer Life Saving Corps. The constantly growing use of Revere Beach by the public correspondingly increases the work of keeping the beach clean, and of removing the large amount of paper, boxes and other débris that is left behind. The usual "carnival," conducted by a committee of citizens of Revere and business men along the reservation, was held during the two weeks beginning September 2.

The Revere Beach Bath-house was opened on June 15 and closed September 15, a period of 92 days. The number of bathers was 157,287, of which 100,480 were males and 56,807 females. The attendance was large the early part of the season, but fell off on account of the unfavorable weather conditions during August and September. The largest number of bathers on one day was on August 11, when 7,960 persons used the bath-house. The receipts for the season were $34,008.45, and the expenses for the year, including repairs after the fire, were $40,544.07, the deficit having been paid out of the balance remaining from the previous year. On the evening of July 28 the bath-house was in great

danger of destruction from a fire which started in an amusement concern in the rear of the bath-house on Ocean Avenue, and destroyed a number of private buildings. Some damage was done to the bath-house in the women's yard, and much credit is due to the employees and police of the reservation in preventing the destruction of the building. The Commission also recognized formally the excellent work of the Revere Fire Department and the coöperation of the fire squad of Wonderland, a private amusement enterprise located in the rear of the reservation. During the winter and before the opening of the bath-house, the floors of the bath yards were repaired and the laundry machinery overhauled. In the sewing rooms bathing suits were made for this and the other two bath-houses.

The driveway of Winthrop Shore Reservation was several times cleared from the sand and stones thrown up by winter storms. During the summer the road was treated with tarvia. The iron fence was thoroughly scraped and repainted, and several sections of the granolithic promenade were repaired.

The completed portion of the drive in Lynn Shore Reservation was resurfaced, the iron fence along the sea wall scraped and repainted, and some repairs made at the base of the wall. Preparation was made for the opening of the remainder of the drive from Red Rock to the Nahant Bath-house, which is substantially completed.

Revere Beach Parkway was partly treated with tarvia last year. This year the same treatment was applied for the remainder of the distance, furnishing, in connection with other park roads, a dustless road from Somerville to Lynn. Fences were repainted and the trees were protected against the gypsy and brown-tail moths. The bridge over the Boston, Revere Beach & Lynn Railroad, at Beachmont, was paved with wood blocks.

Lynnway was treated with tarvia from Revere Beach Reservation to Saugus River Bridge. An additional fender guard was built at the draw of the bridge, to prevent vessels when swung around by the tide from striking the bridge.

The bridle path built in the Nahant Beach Parkway has already been described. It was completed and opened on

May 28, and is very largely used. Additional planting has been done in coöperation with the work of the town forester of Nahant. The Nahant Beach Bath-house was open from July 10 to September 2. It was used by 26,953 persons, of whom 13,895 were males and 13,058 females. On August 11 the number of bathers was 1,819. The receipts for the season were $5,235.05, and the expenses for the year $5,837.28. As at the other bath-houses, the bathing was affected by the unfavorable weather during the last part of the season.

RIVERSIDE DIVISION: ALBERT N. HABBERLEY, *Superintendent.*

An existing road in Auburndale Park has been improved and continued to a connection with the road in Forest Grove, making a pleasant park drive from Commonwealth Avenue in Auburndale to Woerd Avenue in Waltham. Quinobequin Road between Newton Upper and Lower Falls has been repaired. On Fox Island a band stand has been built, to the cost of which the public boat owners in this section of the river made a generous contribution. The banks of the river have been repaired, and in some cases protected by beaching with heavy gravel. The damage from the wash of motor boats is becoming more apparent each year, and will in time require extensive repairs to the banks. Some dredging has been done and stumps removed from the river where they interfered with boating. The gypsy and brown-tail moth are both found in the cities and towns adjacent to the Charles River, and it has required considerable work to protect the tree growth along the banks, which in many sections is very luxuriant. At Waltham a measured course of three-quarters miles has been permanently marked for use at regattas. Range lights have indicated the course for canoes in summer, and danger lights have been maintained at various points during the skating season. Space for skating has been cleared near Moody Street in Waltham and at Weston Bridge at Auburndale. Two hundred and nineteen persons were helped at the emergency room at the Headquarters Building. Nineteen persons were taken from the water by the police patrol. There was no accident from drowning. It was found neces-

MYSTIC RIVER RESERVATION. — Auburn Street Bridge.

sary to enlarge the Headquarters Building by a small addition which is used for a recovery room. A gasoline launch has been purchased for patroling purposes, and the old launch retained as a spare boat. The city of Newton and town of Weston have built a handsome concrete two-arched bridge across the river, connecting Concord Street in Newton with Park Road in Weston.

SPEEDWAY DIVISION: JOHN L. GILMAN, *Superintendent.*

The upper half of the Speedway itself was resurfaced in the spring, and Soldiers' Field Road was resurfaced with a light coating of gravel. Charles River Road in Watertown was treated throughout its entire length with asphaltoline. On the Speedway the usual winter, spring and fall races were held under the auspices of the Metropolitan Driving Club. There were 62 days of sleighing during the winter months. During the Old Home Week celebration in Boston last summer, races and a horse show were held under the direction of a committee. The buildings have been repainted, and there has been considerable care given to the trees and shrubs. The gypsy moth has increased in this section, but the brown-tail is less prevalent than in previous years. The pleasure ground for children at the foot of Market Street in Brighton has been much used. Band concerts were given there during the summer.

The driveway of Fresh Pond Parkway was resurfaced with stone dust. Particular care has been taken to protect the trees not only from the gypsy and brown-tail moths, but also from the elm tree beetle, which has appeared again in Cambridge. Additional planting has been done in the parkway and at Lowell Memorial Park.

BEAVER BROOK DIVISION: ROBERT ELDER, *Superintendent.*

The Waverley oaks and other interesting tree growth of this reservation have been protected against moths and other insect pests. A portion of the wall on Trapelo Road has been rebuilt. A band stand has been built, which can also be used in case of need as a shelter building for picnickers. The use

of this park for picnickers in summer and of the ponds for skating in winter is as great as ever, and is due not only to its accessibility, but to its charming rural character.

NANTASKET BEACH DIVISION: MOODY LEIGHTON, *Superintendent.*

The portion of Nantasket Avenue in the control of the Commission has been resurfaced, and additional catch-basins and drains installed. Repairs have been made to the buildings, piazzas and board walks of the buildings on the reservation, and a considerable amount of painting done. Additional seating room has been provided in the neighborhood of the band stand.

The Nantasket Beach Bath-house was opened on June 30 and closed on September 2, a period of 65 days. The total number of bathers was 33,528, of which 18,884 were males and 14,644 were females. The receipts from bathers were $7,437.40, to which should be added $1,511.03 received from sale of steam from the laundry plant to the hotel, making a total of $8,948.43. The expenses for the year were $8,363.88. The largest day was August 11, when 2,129 persons used the bath-house. As at the other bath-houses the total of the year's bathing was less than in 1906, due apparently to unfavorable weather in the last part of the summer. At Nantasket, however, there seems to be need of some enlargement in order to meet the demand on favorable days.

3. MISCELLANEOUS.

The Legislature provided an appropriation of $25,000 for band concerts in the Metropolitan Parks. Concerts were given daily at Revere and Nantasket beaches during the summer. Concerts were also given at the following places from time to time: Nahant Beach Bath-house; Fellsmere Park, Malden; Fox Island, Waltham; Waltham Canoe Club during regatta; Cradock Field, Malden; Beaver Brook Reservation, Waverley; Riverside band stand at Auburndale; Manchester Field, Winchester; foot of Great Blue Hill, Milton; Speedway Pleasure Grounds, foot of Market Street, Brighton District, Boston. In all 383 concerts were given, counting both afternoon and evening concerts. Band stands were built

at the foot of Great Blue Hill, Beaver Brook Reservation at Waverley, Fox Island in Charles River, Manchester Field in Winchester and Fellsmere Park in Malden. Band stands had already been provided at Nahant, Revere and Nantasket beaches, and a portable band stand was loaned by the city of Malden for use on Cradock Field. A small balance of the appropriation remained after payment of all expenses.

The Legislature of 1907 passed an act, chapter 529, amending chapter 529 of the Acts of the year 1906, relating to the purification of Mystic River, Alewife Brook and adjacent water courses, ponds and drainage areas. By this new act the powers of the Commission are more clearly defined, the approval of the plans by the cities and towns interested is provided for, and an additional appropriation of $25,000 made for the work in addition to the $100,000 already authorized. The proportions in which these towns and cities are to contribute to the cost of the work is also defined. Considerable work has been done in preparation of plans and estimates of cost, and the Commission is at present engaged in obtaining as far as practicable options on the land required by these plans, in order to ascertain if sufficient funds are available to justify entering upon the work.

By chapter 404 of the Acts of the Legislature of 1907 the members of the Charles River Basin and Metropolitan Park commissions were made a Joint Board for the purpose of granting boat-house locations on the park now under construction in the rear of Beacon Street in Boston along the right bank of the Charles River. The Joint Board organized on June 18, at which meeting Dr. Henry S. Pritchett, Chairman of the Charles River Basin Commission, was chosen Chairman of the Joint Board, and the Secretary of the Park Commission appointed Secretary of the Joint Board. The Board has received several petitions for locations, which are still under consideration. Public hearings have been held on these petitions, at which all persons interested have been encouraged to express their views on the general question of granting locations and the terms to be imposed. The Joint Board has also held meetings for the further discussion and consideration of the questions involved, and has, through its

landscape advisers and engineers, caused various investigations to be made for the information of the Board. No action, however, has as yet been taken upon the petitions.

Leave of absence for vacation and foreign travel was granted by the Commission to its Secretary from July 3 to October 17, and during this period George Lyman Rogers, Esq., of the Law Department, acted as Secretary.

4. Finances.

The following tables show in brief form the expenditures under the various park loans for the year ending Dec. 1, 1907: —

Metropolitan Parks Loan Fund.

Blue Hills Reservation: —		
Miscellaneous, ...	$49 65	
		$49 65
Middlesex Fells Reservation: —		
Miscellaneous, ...	$1,715 96	
		1,715 96
Revere Beach Reservation: —		
Miscellaneous, ...	$1,900 61	
		1,900 61
Stony Brook Reservation: —		
Miscellaneous, ...	$67 45	
		67 45
Beaver Brook Reservation: —		
Miscellaneous, ...	$6 67	
		6 67
Hemlock Gorge Reservation: —		
Miscellaneous, ...	$16 00	
		16 00
Charles River Reservation: —		
Land, ...	$200 00	
Miscellaneous, ...	13,935 53	
		14,135 53
Neponset River Reservation: —		
Land, ...	$3,368 57	
Miscellaneous, ...	63 53	
		3,432 10
Mystic River Reservation: —		
Land, ...	$2,750 00	
Miscellaneous, ...	65,130 91	
		67,880 91

Lynn Shore Reservation : —		
Land, ...	$32,500 00	
Miscellaneous, ...	71,632 02	
		$104,132 02
Quincy Shore Reservation : —		
Land, ...	$2,071 71	
Miscellaneous, ...	60,823 85	
		62,895 56
Winthrop Shore Reservation : —		
Miscellaneous, ...	$24 83	
		24 83
King's Beach Reservation : —		
Miscellaneous, ...	$13 50	
		13 50
Boylston Street Bridge : —		
Miscellaneous, ...	$2,261 75	
		2,261 75
Alewife Brook Purification : —		
Miscellaneous, ...	$1,388 44	
		1,388 44
General expense, ...		5,011 42
		$264,932 40

METROPOLITAN PARKS LOAN FUND, SERIES II.

Blue Hills Parkway : —		
Miscellaneous, ...	$59 20	
		$59 20
Middlesex Fells Parkway : —		
Land, ...	$5,394 04	
Miscellaneous, ...	8,563 13	
		13,957 17
Mystic Valley Parkway : —		
Miscellaneous, ...	$11,835 56	
		11,835 56
Revere Beach Parkway : —		
Land, ...	$593 16	
Miscellaneous, ...	801 82	
		1,394 98
Neponset River Parkway ; —		
Miscellaneous, ...	$87 11	
		87 11
Fresh Pond Parkway : —		
Miscellaneous, ...	$5 28	
		5 28

Furnace Brook Parkway : —		
Land, ...	$10,829 28	
Miscellaneous, ...	20,407 34	
		$31,236 62
Nahant Beach Parkway : —		
Miscellaneous, ...	$7,092 99	
		7,092 99
Lynn Fells Parkway : —		
Land, ...	$4,149 00	
Miscellaneous, ...	57,062 85	
		61,211 85
Winthrop Parkway : —		
Land, ...	$300 00	
Miscellaneous, ...	134 65	
		434 65
Charles River Speedway : —		
Miscellaneous, ...	$28 91	
		28 91
Blue Hills Roads : —		
Miscellaneous, ...	$184 39	
		184 39
Middlesex Fells Roads : —		
Miscellaneous, ...	$4,116 44	
		4,116 44
Lynnway : —		
Miscellaneous, ...	$1,184 57	
		1,184 57
General expense, ...		5,534 37
		$138,364 09

The following tables show the total amount expended in each loan, the cost of each reservation and parkway to Dec. 1, 1907, and the amounts charged by the Auditor's department to meet the sinking fund and interest requirements previous to Jan. 1, 1900: —

METROPOLITAN PARKS LOAN FUND.

Blue Hills Reservation : —		
Land, ...	$362,562 04	
Miscellaneous, ...	287,034 54	
		$649,596 58
Middlesex Fells Reservation : —		
Land, ...	$690,782 43	
Miscellaneous, ...	287,209 31	
		977,991 74

Revere Beach Reservation : —		
Land, ...	$1,162,947 67	
Miscellaneous, ...	799,177 13	
		$1,962,124 80
Stony Brook Reservation : —		
Land, ...	$281,243 87	
Miscellaneous, ...	75,779 27	
		357,023 14
Beaver Brook Reservation : —		
Land, ...	$29,819 29	
Miscellaneous, ...	23,818 86	
		53,638 15
Hemlock Gorge Reservation : —		
Land, ...	$53,254 00	
Miscellaneous, ...	15,542 94	
		68,796 94
Charles River Reservation : — . .		
Land, ...	$1,476,947 55	
Miscellaneous, ...	274,237 08	
		1,751,184 63
Neponset River Reservation : —		
Land, ...	$224,383 04	
Miscellaneous, ...	46,310 02	
		270,693 06
Mystic River Reservation : —		
Land, ...	$242,533 21	
Miscellaneous, ...	178,670 64	
		421,203 85
Lynn Shore Reservation : —		
Land, ...	$360,774 29	
Miscellaneous, ...	217,362 31	
		578,136 60
Quincy Shore Reservation : —		
Land, ...	$73,716 26	
Miscellaneous, ...	178,986 85	
		252,703 11
Winthrop Shore Reservation : —		
Land, ...	$51,067 32	
Miscellaneous, ...	165,410 71	
		216,478 03
Hart's Hill Reservation : —		
Land, ...	$10,000 00	
Miscellaneous, ...	103 95	
		10,103 95

King's Beach Reservation : —		
Land, ...	$24,297 21	
Miscellaneous, ...	1,551 63	
		$25,848 84
West Roxbury Parkway : —		
Land, ...	$244,976 01	
Miscellaneous, ...	8,313 67	
		253,289 68
Wellington Bridge : —		
Miscellaneous, ...	$185,317 42	
		185,317 42
Nahant Beach Bath-house : —		
Miscellaneous, ...	$67,794 58	
		67,794 58
Boylston Street Bridge : —		
Miscellaneous, ...	$45,838 57	
		45,838 57
Alewife Brook Purification : —		
Miscellaneous, ...	$1,388 44	
		1,388 44
General expense, ...		157,568 34
		$8,306,720 45
Sinking fund requirements to 1896, .	$18,980 18	
Care and maintenance to July 1, 1896,	85,813 46	
Care and maintenance, July 1, 1896, to Jan. 1, 1897, ...	19,604 06	
Sinking fund assessment for 1897, .	63,630 70	
Sinking fund assessment for 1898, .	9,755 55	
Sinking fund assessment for 1899, .	64,224 00	
Interest, ...	28,318 61	
		290,326 56
Total charged to Dec. 1, 1907, ...		$8,597,047 01

METROPOLITAN PARKS LOAN FUND, SERIES II.

Blue Hills Parkway : —		
Land, ...	$133,492 02	
Miscellaneous, ...	269,453 30	
		$402,945 32
Middlesex Fells Parkway : —		
Land, ...	$250,694 05	
Miscellaneous, ...	469,421 57	
		720,115 62

Mystic Valley Parkway : —		
Land, ...	$203,990 91	
Miscellaneous, ...	257,985 32	
		$461,976 23
Revere Beach Parkway : —		
Land, ...	$537,445 51	
Miscellaneous, ...	838,607 26	
		1,376,052 77
Neponset River Parkway : —		
Land, ...	$83,941 75	
Miscellaneous, ...	35,832 60	
		119,774 35
Fresh Pond Parkway : —		
Land, ...	$44,086 25	
Miscellaneous, ...	29,819 51	
		73,905 76
Furnace Brook Parkway : —		
Land, ...	$149,622 77	
Miscellaneous, ...	134,782 91	
		284,405 68
Nahant Beach Parkway : —		
Land, ...	$80,940 78	
Miscellaneous, ...	74,664 27	
		155,605 05
Lynn Fells Parkway : —		
Land, ...	$35,286 96	
Miscellaneous, ...	73,531 10	
		108,818 06
Winthrop Parkway : —		
Land, ...	$16,969 00	
Miscellaneous, ...	2,906 98	
		19,875 98
Charles River Speedway : —		
Miscellaneous, ...	$521,174 14	
		521,174 14
Blue Hills Roads : —		
Miscellaneous, ...	$8,182 61	
		8,182 61
Middlesex Fells Roads : —		
Miscellaneous, ...	$57,120 42	
		57,120 42
Stony Brook Roads : —		
Miscellaneous, ...	$37,183 45	
		37 183 45

Lynnway: —		
Land,	$20,500 00	
Miscellaneous,	110,811 34	
		$131,311 34
Spy Pond Parkway: —		
Miscellaneous,	$89 04	
		89 04
General expense,		103,728 15
		$4,582,263 97
Sinking fund requirement for 1896,	$3,650 03	
Sinking fund requirement for 1897,	14,057 10	
Sinking fund requirement for 1898,	3,765 08	
Sinking fund requirement for 1899,	15,396 00	
One-half interest,	22,327 68	
		59,195 89
Total charged to Dec. 1, 1907,		$4,641,459 86

The appropriations heretofore made are as follows: —

METROPOLITAN PARKS LOAN FUND.

Original appropriation, chapter 407, Acts of 1893,	$1,000,000 00
First Revere Beach Act, chapter 483, Acts of 1894,	500,000 00
Charles River Act, chapter 509, Acts of 1894,	300,000 00
Second Revere Beach Act, chapter 305, Acts of 1895,	500,000 00
General appropriation, chapter 466, Acts of 1896,	1,000,000 00
General appropriation, chapter 464, Acts of 1897,	500,000 00
General appropriation, chapter 530, Acts of 1898,	1,000,000 00
Revere Beach Bath-house Act, chapter 142, Acts of 1899,	125,000 00
General appropriation, chapter 396, Acts of 1899,	300,000 00
Charles River Improvement Act, chapter 465, Acts of 1900,	50,000 00
Fuller's Wharf Act, chapter 467, Acts of 1900,	30,000 00
General appropriation, chapter 445, Acts of 1901,	450,000 00
Mystic River Bridge Act, chapter 492, Acts of 1901,	200,000 00
General appropriation, chapter 290, Acts of 1903,	125,000 00
Newton Upper Falls Bridge Act, chapter 391, Acts of 1903,	40,000 00
Continuing appropriation, chapter 429, Acts of 1903, for 1903,	300,000 00
For 1904,	300,000 00
For 1905,	300,000 00

For 1906,	$300,000 00
For 1907,	300,000 00
Nahant Beach Bath-house Act, chapter 326, Acts of 1904,	70,000 00
Reimbursing loan for moth expense, chapter 486, Acts of 1906,	50,000 00
Purification of Mystic River, Alewife Brook and adjacent water courses, ponds and drainage areas, chapter 529, Acts of 1906,	100,000 00
Additional appropriation for purification of Mystic River, etc., chapter 529, Acts of 1907,	25,000 00
	$7,865,000 00
To provide for interest and sinking fund requirements to 1900, chapter 311, Acts of 1897,	900,000 00
Total amount of loans,	$8,765,000 00
Amounts received from sales of buildings, receipts from bath-house, fines, etc.,	198,334 01
Total,	$8,963,334 01
Total charged to loans,	8,597,047 01
Balance remaining in hands of State Treasurer,	$366,287 00

METROPOLITAN PARKS LOAN FUND, SERIES II.

Original boulevard, chapter 288, Acts of 1894,	$500,000 00
General appropriation, chapter 472, Acts of 1896,	500,000 00
General appropriation, chapter 521, Acts of 1897,	1,000,000 00
Saugus Bridge Act, chapter 547, Acts of 1898,	100,000 00
General appropriation, chapter 428, Acts of 1899,	500,000 00
Mattapan Bridge Act, chapter 443, Acts of 1900,	75,000 00
Winchester Act, chapter 444, Acts of 1900,	50,000 00
Revere Beach Parkway Act, chapter 445, Acts of 1900,	200,000 00
General appropriation, chapter 172, Acts of 1902,	450,000 00
General appropriation, chapter 359, Acts of 1903,	110,000 00
Continuing appropriation, chapter 419, Acts of 1906, for 1903,	300,000 00
For 1904,	300,000 00
For 1905,	300,000 00
For 1906,	300,000 00
For 1907,	300,000 00
	$4,985,000 00

To provide for interest and sinking fund requirements to 1900, chapter 311, Acts of 1897, ...	$100,000 00
Total amount of loans, ...	$5,085,000 00
Receipts from sales, etc., ...	29,907 41
Total, ...	$5,114,907 41
Total of amounts charged to loans, ...	4,641,459 86
Balance remaining in hands of State Treasurer, .	$473,447 55

NANTASKET BEACH LOAN.

Appropriation, chapter 464, Acts of 1899, . . .	$600,000 00
Appropriation, chapter 456, Acts of 1901, . . .	100,000 00
Total amount of loans, ...	$700,000 00
Receipts from rents, etc., ...	5,881 50
Total, ...	$705,881 50
Total of amounts charged to loans, . . .	705,881 50

Respectfully submitted,

JOHN WOODBURY,
Secretary.

DEC. 1, 1907.

REPORT OF THE LANDSCAPE ARCHITECTS.

Hon. WILLIAM B. DE LAS CASAS, *Chairman, Metropolitan Park Commission, Boston, Mass.*

SIR: — We beg to submit the following summary report of matters in which the Landscape Architects Advisory have been consulted during the year ending Nov. 30, 1907.

In the Middlesex Fells we have supervised the removal of dead and dying trees and of a limited number of defective and sickly trees to facilitate the gypsy moth work, but the amount of cutting has been much more restricted than in recent years, because any further extensive cutting would impair the scenery of the reservation for years to come. What is now chiefly needed for the improvement of the woods is a chance for the existing trees to grow with as little setback from insect attacks and other enemies as may be, and for the fostering of healthy seedlings. The tendency to a bald monotony of appearance in the woods, resulting from the wholesale cutting of underbrush, which is one item of the campaign against the moths, is but a temporary objection; but this same brush cutting makes it exceedingly difficult to preserve and encourage the numerous self-sown seedlings, especially of white pine, which in many parts of the reservation are giving promise of a healthier new generation, partly as a result of the thinnings of previous years. Improvements in method have been suggested, which it is hoped will, in some measure at least, meet this difficulty. In consultation with the Engineering Department we have prepared studies for treating various problems of construction on the proposed electric car route along the west side of Forest Street, with a view to minimizing the injury to the reservation that will result from this necessary line of through transportation, and

we have prepared plans for the location of a police station and the treatment of its surroundings. Beyond supervising a small amount of improvement cutting on the Beaver Brook Reservation, we have not been consulted as to the other forest reservations during the past year.

We have reported upon a number of minor matters affecting the scenery of the Charles River Reservation, and in consultation with the Engineer and with the Landscape Architect and the Engineer of the Charles River Basin Commission have reported on questions affecting the location of boat club houses on the shores of the basin. On the Mystic River Reservation and Mystic Valley Parkway, questions of design affecting several bridges, a band stand and certain planting were referred to us, and plans or advice submitted. Designs for the treatment of the Lynn Shore, from Red Rock to the Nahant Bath-house, were completed, providing for a connecting drive and promenade and for much-to-be-desired tree planting, especially on the promontory of Red Rock. Advice and supplementary plans and supervision with regard to the details of improvements previously planned were required in connection with Fellsmere Park and other portions of the Middlesex Fells Parkway, the Lowell Memorial Park, the Lynn-Fells Parkway, Nahant Beach and Nantasket Beach.

Appended is a tabular summary of the plans and reports submitted during the year. Detailed information concerning the various items of construction planting and maintenance which were carried out during the year under our plans or with our advice will be found in the reports of the Departments of Engineering and Superintendence.

Respectfully submitted,

OLMSTED BROTHERS.

Dec. 1, 1907.

Summary of Plans and Reports prepared by the Landscape Architects for the Metropolitan Park Commission during Year ending Nov. 30, 1907.

	Studies.	Preliminary and General.	Grading and Construction.	Planting and Forestry.	Reports.	Totals.
Fells Reservation,	3	–	8	2	3	16
Beaver Brook,	–	–	–	–	1	1
Charles River,	8	2	–	5	6	21
Mystic River,	–	–	2	1	2	5
Neponset River Reservation,	–	–	–	–	1	1
Lynn Shore,	4	4	2	–	3	13
Nantasket Beach,	–	–	–	1	1	2
Fells, Parkway,	1	2	6	7	6	22
Mystic Valley Parkway,	–	–	3	–	2	5
Neponest River Parkway,	2	–	–	–	–	2
Fresh Pond Parkway,	–	–	–	–	1	1
Lynn Fells Parkway,	–	–	–	2	2	4
Jamestown Exhibit,	–	–	1	–	–	1
Totals,	18	8	22	18	28	94

REPORT OF THE ENGINEER.

Hon. WILLIAM B. DE LAS CASAS, *Chairman, Metropolitan Park Commission.*

SIR: — I beg to submit the following report of the work of the Engineering Department for the year ending Nov. 30, 1907.

The number of employees in this department has averaged 33 during the year, varying from 29 to 36. At present there are 32, with the following classification: 3 assistant engineers, 2 draftsmen, 6 instrument men in charge of parties, 15 rodmen, 4 inspectors, 1 clerk and 1 stenographer.

The work of the department has been principally on construction and work incidental to it. Besides this the department has given general inspection to all work done in the parkways and reservations under permits and licenses granted by the Commission to cities, towns, corporations and individuals, and has furnished engineering services and general supervision for work of repairs and maintenance in each of the divisions.

Considerable study has been given to the various methods of treatment of road surfaces to make them dustless without watering, and to protect them from the peculiar wear of the automobiles, which has become a serious problem in the maintenance of the parkway drives.

From experiments made during the past year it is my opinion that for macadam road surfaces treatment with a specially prepared coal tar, known as "tarvia," gives the best results. For gravel road surfaces treatment with crude petroleum containing a large percentage of asphaltum is best and most economical.

The construction work under the direction of this department has included the grading and surfacing of parkway and reservation drives and work incidental to it, and a considera-

ble amount of concrete and reinforced concrete masonry work in the construction of retaining walls, river walls, sea walls and bridges.

The total cost of conducting the department has been as follows: —

Services,	$31,407 26
Equipment,	194 05
Operating expenses,	3,562 44
Total,	$35,163 75

The total cost of construction work done under the direction of this department has amounted to $300,517.82, exclusive of the cost of engineering and inspection. The cost of engineering and inspection incidental to the construction work has been $19,505.46, an average of 6 per cent.

An appraisal of the property in charge of the department, omitting the value of maps, plans, notes and records, is as follows: —

Equipment: —		
Offices,	$2,242 30	
Surveying and drawing instruments,	2,802 65	
Miscellaneous,	36 25	
		$5,081 20
Supplies: —		
General,		893 81
Total,		$5,975 01

Details of the work done under the direction and supervision of this department are given in the following sections of parkway and reservation, and in the tables appended.

Parkways.

Alewife Brook Parkway. — Preliminary plans and estimates of the cost of the work of purification have been made, and land plans and sketches to accompany options have been prepared.

Furnace Brook Parkway. — The work of surfacing and finishing the parkway from Blue Hills Reservation to Adams

Street, Quincy, has been completed, and this portion has been opened for the use of the public during the greater part of the year.

The total cost of this work, including the cost of considerable work in addition to that contemplated in the preliminary estimate, has been as follows: —

Previously reported: —		
Construction and incidentals, contract No. 96,	$39,113 17	
Engineering and inspection,	2,826 96	
		$41,940 13
Year ending Nov. 30, 1907: —		
Construction, contract No. 96,	$3,211 65	
Incidentals,	1,122 15	
Engineering and inspection,	559 35	
		4,893 15
Total,		$46,833 28

Engineering services have been furnished for building police substation at the junction of the parkway and Cross Street, West Quincy.

Water standpipes, for the use of watering carts, have been installed by the city of Quincy, the cost of the work to be paid by this Commission. The total cost of this work has been $1,081.80, exclusive of engineering and inspection.

Plans of land to be taken for the portion of parkway from Quincy Shore Reservation to Hancock Street, Quincy, have been prepared.

Lynn Fells Parkway. — The work of building concrete abutments and building and erecting steel plate girder bridge for the Western Division of the Boston & Maine Railroad over the parkway has been completed.

During the work of erection of the steel superstructure of the bridge it was necessary to construct a temporary track outside of the location of the bridge, for the operation of trains.

The work of erection of the steel, which was done by the New England Structural Company, under a contract with the Boston & Maine Railroad Company, was begun Jan. 27,

1907, and completed March 2, 1907. On March 7, 1907, the operation of trains on the old location was resumed, both tracks being completed over the new bridge.

The total cost of this work, including the cost of incidental work done by the Boston & Maine Railroad Company, has been as follows: —

Previously reported: —		
Construction and incidentals, contract No. 101,	$4,482 77	
Engineering and inspection,	381 05	
		$4,863 82
Year ending Nov. 30, 1907: —		
Construction, contract No. 101,	$110 50	
Steel superstructure,	6,550 61	
Temporary work incidental to above,	4,986 30	
Incidentals,	30 44	
Engineering and inspection,	415 03	
		12,092 88
Total,		$16,956 70

The work of building to subgrade the parkway from Middlesex Fells Reservation to Green Street, Melrose, under contract with Rowe & Perini, has been completed. Some additional work has been done under this contract for the settlement of claims for damages made on account of the changes in grades of intersecting streets and land abutting parkway.

In a previous report mention was made of the construction of a mattress of trees and tree limbs over a swampy portion of the parkway about 1,700 feet in length. Over about two-thirds of this section this construction was effective in holding the fill, but in the portion where the soft mud was deepest, from 20 to 30 feet in depth, considerable settlement has taken place.

In the grading of this parkway it was necessary to excavate about 12,000 cubic yards of rock in ledges and bowlders. Under this contract nearly all of this rock has been crushed and placed in storage for the surfacing of roadways and walks, which has been done under another contract.

The total cost of the work under the contract for subgrading has been as follows: —

Previously reported: —		
Construction and incidentals, contract No. 102,	$429 96	
Engineering and inspection,	28 95	
		$458 91
Year ending Nov. 30, 1907: —		
Construction, contract No. 102,	$40,562 71	
Incidentals,	816 14	
Engineering and inspection,	2,608 03	
		43,986 88
Total,		$44,445 79

Plans and specifications for surfacing and finishing the parkway from Middlesex Fells Reservation to Tremont Street, Melrose, and from Melrose Street to Green Street, have been prepared. The portion across the swamp was omitted, to allow it to complete settlement before finishing. On Sept. 17, 1907, the following bids were received: —

John F. Gill Company, Somerville,	$32,411 00
Rowe & Perini Construction Company, Melrose,	29,736 70
Fred E. Ellis, Melrose,	29,074 05
Coleman Brothers, Boston,	27,221 40

It was decided to omit the short portion from Melrose Street to Green Street from this contract, and the proposal of Coleman Brothers was accepted for the quantities of work as revised, which made the total bid amount to $17,390. The work was begun Oct. 1, 1907, and is now in progress and nearly completed.

The estimated cost of this work to Dec. 1, 1907, has been as follows: —

Construction, contract No. 111,	$12,853 69
Incidentals,	233 08
Engineering and inspection,	506 23
Total,	$13,593 00

Lynnway. — On account of the difficulty of handling vessels approaching the Saugus River Bridge from the east in the swift current, it was deemed advisable to extend the fender guard on this side of the bridge about 80 feet.

A detail plan and specifications were prepared, and the following bids were received on March 12, 1907: —

T. E. Ruggles, Boston,	$1,200 00
W. A. Norton Company, Boston,	950 00
W. L. Miller, Boston,	875 00
A. A. Hersey, East Boston,	750 00

The proposal of A. A. Hersey was accepted, and the work was done in May, 1907.

Middlesex Fells Parkway. — Specifications have been prepared to accompany plans made last year for the construction of the extension of Fellsway West to Elm Street, and the grading of the roadbed for electric railway to the Medford-Stoneham line; and on Sept. 3, 1907, the following bids were received for the work: —

Thomas F. Welch, West Roxbury,	$62,022 25
Falvey & Kelley, Dorchester,	57,995 00
Bruno & Petitti, Boston,	55,571 25
Hugh Nawn Contracting Company, Roxbury,	53,661 25
John F. Gill Company, Somerville,	53,437 50
Coleman Brothers, Boston,	49,127 50
Rowe & Perini Construction Company, Melrose,	44,230 00

The contract was awarded to Rowe & Perini Construction Company, and the work was begun on Oct. 3, 1907, and is now in progress.

The work consists of building a road from the present ending of Fellsway West to Elm Street, parallel to and easterly from Forest Street, to be used as a traffic road. Forest Street will then become the pleasure drive as far as Elm Street, with the electric railway in the reserved space between the two roads. From Elm Street north Forest Street will again become the traffic road, and a new pleasure drive is to be built west of Forest Street. The railway is to be built

westerly from and just outside Forest Street, running practically parallel to it from Elm Street to the Medford-Stoneham line.

The estimated cost of this work to Dec. 1, 1907, has been as follows: —

Construction, contract No. 108,	$15,385 49
Incidentals,	706 59
Engineering and inspection,	521 37
Total,	$16,613 45

In September the Boston Elevated Railway Company began the construction of its tracks and wires on the location granted by the Commission. The work was prosecuted with a large force of men until about the middle of November, when work was discontinued on account of winter conditions. The work was practically completed from Mystic Avenue, Somerville, to Malden Street, Medford, a distance of about two miles. It is expected that they will resume work early in the spring, and proceed until the line is completed through the entire parkway to Elm Street, and through the reservation to the end of their location at the Medford-Stoneham line.

The entire length of about 10 miles of macadam roadways of the parkway has been treated with preparations for the suppression of dust and protection of the road surfaces. On about 9 miles, or 160,000 square yards of surface, a mixture of water-gas tar and Kentucky oil was used. This oil contained a heavy asphalt base, and was mixed with the water-gas tar in the varying proportions of 2 barrels of oil and 6 barrels of tar to 4 of oil and 6 of tar, the amount of oil used depending on the condition of the road on which it was used. This mixture was heated by steam coil and applied by means of a special attachment to a watering cart.

This treatment thoroughly laid the dust at the time of its application, and remained effective for this purpose for from eight to ten weeks. The mixture has little if any bonding qualities, and does not protect the road surface from stripping by rapidly moving automobiles, but probably after a number of applications enough oil would accumulate to form a bond.

Only one application was made this year, and the effects have almost entirely disappeared.

The work was done by the reservation forces, and the cost of this work, including the cost of materials, was about 4 cents per square yard.

A short section of Fellsway East from Pleasant Street to Pine Street, containing about 15,000 square yards of surface, was treated with "tarvia," a special preparation of coal tar.

This section of macadam roadway was in very poor condition, and needed resurfacing. The "tarvia" treatment was considered the most economical method, as, besides providing resurfacing at a low cost, it also eliminated dust and furnished a surface which was not easily stripped by automobile travel.

This work was done by the forces from Revere Beach Reservation, who have had experience in this class of work, and the cost, including materials, has been about 9 cents per square yard.

Mystic Valley Parkway. — The roadways of this parkway, with a total length of about 3 miles, or 64,000 square yards of surface, have been treated with the tar and oil mixture, the same as used on Middlesex Fells Parkway. The results on the greater part of this parkway have been somewhat better than on the Middlesex Fells Parkway, and this is due, in my opinion, to the fact that the roadways on which the better results were obtained were constructed with gravel surfaces. The work was done by the reservation forces, and the cost was the same, about 4 cents per square yard.

Construction plans for a reinforced concrete arch bridge for the drive over Alewife Brook are being prepared.

Nahant Beach Parkway. — Specifications have been prepared to accompany plans prepared last year for the construction of a bridle path from a point just south of the bath-house to the end of the parkway taking in Nahant, a distance of about 1.65 miles.

The path is 12 feet in width, and is located on the top of the beach, parallel to and east of the Nahant Road. It is constructed with a base of soft-coal cinders 3 inches in depth,

and a top surfacing 3 inches in thickness, composed of a mixture of clay, sand and loam.

On March 1, 1907, the following bids were received: —

	Per Lin. Ft
John F. Gill Company, Somerville,	$0 54
Coleman Brothers, Boston,	52
M. McDonough, Swampscott,	49

The proposal of M. McDonough was accepted, and the work was begun on March 4, 1907, and completed on May 15, 1907.

The total cost of this work has been as follows: —

Construction, contract No. 103,	$4,267 90
Incidentals,	32 16
Engineering and inspection,	311 80
Total,	$4,611 86

The raising of the grade of Washington Street by the city of Lynn made necessary the raising of the grade of the traffic road at its junction with Washington Street.

In consideration of a release of claims for damages, the city of Lynn made the necessary filling and this Commission paid the cost of taking up and relaying the granite block paving and the edgestone.

On April 25, 1907, the following proposals were received: —

C. F. Dudley, Reading,	$850 00
M. McDonough, Swampscott,	712 50
Coleman Brothers, Boston,	527 50

The work was done by Coleman Brothers, and the total cost of the work, including cost of raising catch-basins, which was not included in their proposal, has been $600.95, exclusive of engineering and inspection.

Revere Beach Parkway. — The bridge over the Boston, Revere Beach & Lynn Railroad near Beachmont was designed for a 2-inch spruce plank floor, and was so constructed. It was necessary to renew this floor about every four or five years. This became necessary this year, and it was decided to pave the floor with wooden blocks instead of replanking.

LYNN SHORE RESERVATION. — Construction of Sea Wall.

This method, although costing more, will probably last three or four times as long and will be economical in the end. The work was done by the reservation forces, and the total cost was $407.40, exclusive of engineering and inspection.

At the time of the last report the work of treating the roadways of the parkway with "tarvia" had been completed but a short time, and sufficient time had not elapsed to determine its effectiveness and durability. The roads treated have now had the test of one year, with rather unusually severe winter conditions attending, and in my judgment the treatment has proven very satisfactory in protecting the road surfaces and abating the dust nuisance. At the end of last winter one portion of the roadway showed signs of scaling, and I am of the opinion that this was chiefly due to the fact that an excessive amount of clay binder was used in the construction of the macadam surfacing, which prevented the proper penetration of the "tarvia." Even after the scaling of the top surfacing of "tarvia" and screenings, the road remained in good condition and appeared to have received some benefit from the treatment.

One other section of the roadway was too lightly treated, *i.e.,* too little material was used, or it penetrated more rapidly or to a greater extent than ordinarily, as the larger stones of the macadam were not covered with the surfacing of "tarvia" and screenings. The road, however, seemed to be thoroughly bonded, and remained in good condition.

With the exception of these instances, the treated roadways were in excellent condition throughout the winter and spring, and it was evident that, generally, winter conditions and frost had no bad effects. The roadways have been clean and free from dust or mud, and the surfaces protected from the wear of the automobile travel, which is particularly heavy on this parkway.

In July of this year some other portions of the roadways began to show the effects of wear, and during July and August about one-half of the 3½ miles treated last fall, including the section which scaled and the section which was improperly treated, were re-treated with "tarvia," and the balance of the 3½ miles were patched where necessary. The cost, during this year, of maintenance of the "tarvia" sur-

facing done last year, including re-treatment and patching, has been at an average of 3½ cents per square yard.

In addition to the maintenance of that laid in 1906, 4½ to 5 miles, or about 90,000 square yards of roadway, have been treated with this same material in the various parkways and reservations. The whole of Revere Beach Parkway, from Charles Eliot Circle, Revere, to Middlesex Fells Parkway, Medford, is now covered. The average cost of all the new work done this year has been 7.3 cents per square yard.

Winchester-Woburn Parkway. — Preliminary and topographical surveys and plans are being made of the section along the shore of Horn Pond, Woburn.

Reservations.

Blue Hills Reservation. — Plans have been prepared and engineering services furnished for the construction of a border road from Randolph Avenue to Forest Street. The work has been done by the reservation forces, and has been completed.

Charles River Reservation. — The work of surfacing and finishing at Boylston Street Bridge, Newton Upper Falls, which was begun on Sept. 26, 1906, under contract with David R. Courtney, was discontinued during the winter, and was completed April 30, 1907. The delay in this work was caused by delays in the work of the city of Newton in completing the culvert bridge across Boylston Street, and of the Boston & Worcester Street Railway Company in relocating its tracks on the new bridge.

The total cost of this work has been as follows: —

Previously reported: —		
Construction and incidentals, contract No. 92A,	$570 43	
Engineering and inspection,	213 28	
		$783 71
Year ending Nov. 30, 1907: —		
Construction, contract No. 92A,	$968 26	
Incidentals,	283 87	
Engineering and inspection,	288 02	
		1,540 15
Total,		$2,323 86

The work of building to subgrade road along the Charles River, through the United States Arsenal grounds, from Arsenal Street to North Beacon Street, Watertown, has been completed.

This work, which was being done under a contract with Broderick & Donovan, was begun Aug. 20, 1906, and should have been finished before winter, but on account of unsatisfactory progress was not completed until June 1, 1907.

The total cost of this work has been as follows: —

Previously reported: —		
Construction and incidentals, contract No. 100, ...	$9,788 62	
Engineering and inspection, . .	829 14	
		$10,617 76
Year ending Nov. 30, 1907: —		
Construction, contract No. 100, .	$4,156 60	
Incidentals, ...	373 75	
Engineering and inspection, . .	797 28	
		5,327 63
Total, ...		$15,945 39

The elevations of this road were established below that of extreme high tide, expecting that the water in the Charles River Basin would be controlled at a permanent elevation of 8.0 before this time. As the work of the Charles River Basin Commission is not yet far enough advanced to shut out the tide water, it will be necessary to await such time as it shall be, before the work of surfacing and finishing this section of road can be done.

In June of this year the Charles River Road from North Beacon Street to Riverside Street, Watertown, was treated with a petroleum product known as "asphaltoilene." This material was furnished and applied to the road surface by the Good Roads Improvement Company of Cincinnati, O. It is a Kentucky oil, with the naphtha and other volatile substances removed, leaving a heavy asphalt base, which is applied in its natural state, without heating, by means of a machine especially adapted to this class of work.

This road is about 1 mile in length, and is constructed with

a gravel surface. Practically no cleaning was necessary before the application, and after it a light sprinkling of gravel was spread over some portions to absorb the surplus oil. The cost of this treatment was 6 cents per square yard. About 14,675 square yards of roadway were treated, at a total cost of $880.50.

The road has been in excellent condition since its treatment, and has required no watering and no repairs. There is no offensive odor from this oil, and it appears to be particularly effective in the prevention of dust and the protection of the road surface, especially in the case of gravel-surfaced roads.

Lynn Shore Reservation. — Construction plans and specifications have been prepared for the extension of the sea wall, drive and promenade from the point where the former construction ended, near Prescott Place, to Washington Street, Lynn, where a connection is made with Nahant Beach Parkway.

On April 15, 1907, the following bids were received for this work: —

McHale & Perkins, Jamaica Plain,	$117,482 00
George M. Bryne Company, Boston,	116,335 00
Hugh Nawn Contracting Company, Roxbury,	114,309 50
D. F. O'Connell, Dorchester,	108,808 00
Rowe & Perini, Melrose,	97,099 00
Jones & Meehan, Boston,	93,677 00
T. Stuart & Son Company, Newton,	93,223 00
Daniel J. Kiley, Boston,	92,005 20
M. McDonough, Swampscott,	89,725 00
Coleman Brothers, Boston,	87,667 50
Richmond F. Hudson, Melrose,	87,381 50

On account of the fact that Coleman Brothers had built the first section of this work from Swampscott to Red Rock, and were particularly well equipped with men and plant and experienced in this class of work, it was deemed advisable to award the contract to them. The work was begun April 23, 1907, carried on at a good rate of progress and completed on Dec. 7, 1907.

The sea wall is built of Portland cement concrete, and is practically of the same form and section as that of the portion built three years ago. The concrete sea wall now extends along the entire shore from Monument Square, Swampscott, to a point at the foot of Nahant Street, Lynn, except a section about 500 feet in length along the Woodbury property, where a substantial stone masonry wall existed at the time the land was acquired by the Commonwealth. From Nahant Street to Washington Street, along what was formerly Oceanside Park, a stone wall existed also, which was in good condition, and was not replaced with concrete.

The drive and promenade are also now completed the entire distance from Monument Square, Swampscott, to Nahant Beach Parkway at Washington Street, Lynn.

The total cost of the work under this contract has been as follows: —

Construction contract, No. 104,	$82,886 53
Steel reinforcing bars,	1,116 33
Incidentals,	1,318 79
Engineering and inspection,	3,904 46
Total,	$89,226 11

Plans and specifications have been prepared for a galvanized-iron rail fence to be erected on the top of the sea wall. Bids were asked for the fence, both with posts made up of wrought-iron pipe and malleable iron fittings, and also with cast-iron posts.

On July 29, 1907, the following bids were received: —

James W. Sederquist,	$1.91 per lineal foot, with wrought-iron posts.
A. B. Robbins Iron Company,	1.83 per lineal foot, with wrought-iron posts.
A. B. Robbins Iron Company,	1.66 per lineal foot, with cast-iron posts.
W. A. Snow Iron Works, Incorporated,	1.73 per lineal foot, with wrought-iron posts.
W. A. Snow Iron Works, Incorporated,	1.43 per lineal foot, with cast-iron posts.

The proposal of W. A. Snow Iron Works for the fence with cast-iron posts at $1.43 per lineal foot was accepted. The shop work was begun immediately, and the erection of the fence is now in progress.

The appearance of the cast-iron posts is identical with that of the made-up wrought-iron posts used in the fence previously constructed on the northerly portion of the sea wall, and is equally strong.

The estimated cost of this work to Dec. 1, 1907, has been as follows: —

Construction, contract No. 110, ...	$2,145 00

Middlesex Fells Reservation. — Supervision and engineering services have been furnished by this department for the work of reconstructing and surfacing with macadam the portion of Main Street, Stoneham, from Bear Hill Road to South Street, a distance of about 3,500 feet. The crushed stone for this work was obtained from Lynn Fells Parkway, where the rock excavated in the grading was being crushed. The work was done by the reservation forces, under the direction of Superintendent Price. The total cost of this work, exclusive of engineering and inspection, has been $4,102.78.

Mystic River Reservation. — The work of building the two reinforced concrete bridges, one near the Armory and one at Auburn Street, Medford, has been completed.

The total cost of the work at Armory Bridge has been as follows: —

Previously reported : —		
Construction and incidentals, contract No. 98, ...	$24,154 35	
Engineering and inspection, . .	1,820 57	
		$25,974 92
Year ending Nov. 30, 1907 : —		
Construction, contract No. 98, . .	$4,607 90	
Concrete blocks, ...	518 70	
Incidentals, ...	75 56	
Engineering and inspection, . .	793 49	
		5,995 65
Total, ...		$31,970 57

The total cost of the work at Auburn Street Bridge has been as follows: —

Previously reported: —		
Construction and incidentals, contract No. 99,	$24,755 34	
Engineering and inspection,	1,555 99	
		$26,311 33
Year ending Nov. 30, 1907: —		
Construction, contract No. 99,	$2,229 23	
Concrete blocks,	78 00	
Incidentals,	99 16	
Engineering and inspection,	808 69	
		3,215 08
Total,		$29,526 41

Dredging in the Mystic River has been in progress during the year for the widening, deepening and straightening of the channel in accordance with the recommendations of the State Board of Health, in connection with the proposed construction of a dam and tide gates near Cradock Bridge, and the establishment of a permanent water level for the sanitary improvement of the Mystic River and Alewife Brook. The total cost of this work, exclusive of engineering and inspection, has been $4,117.19.

Plans and specifications for the construction of an additional span to Cradock Bridge, boat lock and dam have been prepared.

The work consists of building river walls, a boat lock 15 feet by 40 feet, canoe runway, weirs, tide gates and sluices, and also an additional span to Cradock Bridge for the passage of boats which go through the lock or over the runway, the other openings of the bridge being necessary for the outflow of the gates.

This work is to be built entirely of plain and reinforced concrete, except the movable parts which are of iron or wood.

On June 18, 1907, the following bids were received: —

Jones & Meehan, Boston,	$52,750 00
Austin Engineering and Construction Company, Boston,	39,015 00

The contract was awarded to the lowest bidders, the Austin Engineering and Construction Company, the work was begun on July 1, 1907, and is now in progress. The rate of progress has been very slow and unsatisfactory and the work cannot be completed before next summer.

The estimated cost of this work to Dec. 1, 1907, has been as follows: —

Construction, contract No. 107,	$14,375 00
Incidentals,	393 07
Engineering and inspection,	1,942 37
Total,	$16,710 44

Construction plans and specifications have been prepared for a concrete and steel bridge for the Southern Division of the Boston & Maine Railroad over the reservation drive.

The bridge is to be a segmental arch of 56-foot span and 31 feet in width, to carry two tracks. It is to be constructed entirely of concrete, reinforced with "Johnson" corrugated bars. The spandrel, wing and parapet walls are of monolithic construction, with the faces picked to remove the marks of the forms and give an even appearance. The trimmings, *i.e.,* the arch ring, quoins, corbels and coping, are of molded block concrete, made some time before required for use, and set in place in the same manner as if stone were used. The faces of the molded block are bush hammered, making a contrast with the monolithic work.

On July 8, 1907, the following bids were received: —

Patrick McGovern, Boston,	$28,495 00
T. Stuart & Son Company, Newton,	28,250 00
Coleman Brothers, Boston,	28,000 00

The contract was awarded to Coleman Brothers, the work was begun July 22, 1907, and is now in progress and nearly completed.

Before beginning this work it was necessary to construct a temporary trestle for the operation of trains. It was built outside the location of the bridge and westerly therefrom. The work was done by the Boston & Maine Railroad Com-

MYSTIC RIVER RESERVATION. — Armory Bridge.

pany, the cost to be paid by this Commission. The trains began running on the temporary trestle on July 29, 1907, and it is expected that they will be able to resume running on the original location over the new bridge about Jan. 1, 1908.

The estimated cost of this work to Dec. 1, 1907, has been as follows: —

Construction, contract No. 109,	$26,960 00
Steel reinforcing bars,	1,218 03
Incidentals,	296 46
Engineering and inspection,	1,388 44
Total,	$29,862 93

The roadway of the portion of Auburn Street, West Medford, which comes within the reservation, and the location of which was changed by the construction of the drive and the new bridge over the river, has been surfaced with macadam. The work was done by Coleman Brothers, under an extra order on their contract for building the concrete bridge, was begun Oct. 3, 1907, and completed Nov. 12, 1907. The total cost of this work was $2,384.92, exclusive of engineering and inspection.

Nantasket Beach Reservation. — Engineering services and supervision have been furnished by this department for the work of resurfacing, with gravel, County Road for the entire distance that it passes through the reservation, about 3,800 feet in length.

On account of the difficulty of obtaining suitable binding gravel in the vicinity of this reservation, it was decided to get it from a bank on land of the Commonwealth in Blue Hills Reservation, West Quincy. It was loaded upon the cars at West Quincy by the forces of the Blue Hills Reservation and shipped to Nantasket Beach Reservation over the New York, New Haven & Hartford Railroad. A very good quality of binding gravel was obtained, and the cost of the material delivered at Nantasket was about the same as that for which it had formerly been furnished by local parties. The work of unloading the material and resurfacing the road was done

by the reservation forces. It was begun Sept. 14, 1907, and was completed Oct. 13, 1907. The total cost of the work was $1,856.39, and 7,600 square yards of roadway were resurfaced at an average cost of 24 cents per square yard.

Quincy Shore Reservation. — The work of subgrading the shore drive and beach slopes under contract with Newell & Snowling Construction Company was practically completed Dec. 31, 1906. The surface of the section of the shore from which the filling material was excavated with a steam scraper was not leveled to a safe and satisfactory condition, and $2,500 has been held back from money due the contractor until such time as it shall be made satisfactory.

The total estimated cost of this work has been as follows: —

Previously reported: —		
Construction and incidentals, contract No. 93,	$66,525 04	
Engineering and inspection,	4,376 67	
		$70,901 71
Year ending Nov. 30, 1907: —		
Construction, contract No. 93,	$2,408 38	
Incidentals,	736 13	
Engineering and inspection,	617 21	
		3,761 72
Total,		$74,663 43

Plans and specifications have been prepared for surfacing and finishing the entire work from Atlantic Street to National Sailors' Home, a distance of about 2.2 miles.

On April 24, 1907, the following bids were received: —

Bruno, Salomone & Petitti, Boston,	$75,835 00
Richmond F. Hudson, Melrose,	67,155 00
John E. Palmer, Boston,	66,040 00
T. Stuart & Son Company, Newton,	56,825 00
John F. Gill Company, Somerville,	48,384 00
Coleman Brothers, Boston,	45,192 50

The contract was awarded to Coleman Brothers, the lowest bidders, the work was begun May 1, 1907, is now in progress and nearly completed.

Incidental to this work and under an extra order on the contract, landing floats and pier have been constructed on the shore opposite the end of Appleton Street.

The estimated cost of the work under this contract has been as follows: —

Construction, contract No. 105,	$50,375 60
Incidentals,	2,506 22
Engineering and inspection,	2,985 95
Total,	$55,867 77

Where required for proper protection, fences of spruce lumber have been constructed. The work has been done by the reservation forces, and the total cost has been $1,624.73. A total length of 6,241 feet of fence has been built, at an average cost of 26 cents per lineal foot.

Revere Beach Reservation. — The surface of the shore drive from a point about 500 feet north of Charles Eliot Circle to Revere Street has been treated with "tarvia." From Revere Street north about three-quarters of a mile the surface has been treated with "asphaltoilene." These treatments were made in the same manner as previously described, and the results have been entirely satisfactory. The "tarvia" surface along the section most frequented by the large crowds has been especially so, on account of its cleanliness and freedom from dust, and the ease with which it can be kept clean. About 22,825 square yards of macadam surface were treated with "tarvia," at a total cost of $1,315.37, an average cost of 5.7 cents per square yard, which is unusually low. This low cost was principally due to the fact that little cleaning was necessary before the application, thereby reducing the cost of labor.

About 17,090 square yards of macadam surface were treated with "asphaltoilene," at a total cost of $1,025.40, an average cost of 6 cents per square yard.

Winthrop Shore Reservation. — The roadway surface of the entire length of the drive has been treated with "tarvia." About 23,500 square yards have been covered, at a total cost of $1,635.95, an average cost of 7 cents per square yard.

General.

Eighty permits for work in the reservations and parkways have been issued to cities, towns, corporations and individuals during the year, and the total cost of inspection of this work has been $409.53.

The bridges under the care and control of the Commission have been inspected twice during the year, and reports of their condition made to the Secretary. Supervision has been furnished for all necessary repairs.

The Commission has taken the lead in this section in the movement for the protection of the roads against the wear of the automobile travel, by authorizing experiments with the various materials offered, and by the use, to a considerable extent, of those materials which appeared to have the most value for the purpose. By so doing the roads have been kept in generally good condition, and at a reasonably low cost in comparison with the cost of repairs if they had not been treated.

It is my opinion that this work should be continued, and that all the parkway and reservation roads should be protected by some treatment of tar or oil. Although this work may seem costly in comparison with the expense of maintenance in the past, it undoubtedly is much cheaper in the long run than allowing the roads to be destroyed, and it has the further advantage of providing clean, dustless roads at all times.

Respectfully submitted,

JOHN R. RABLIN,
Engineer.

Dec. 1, 1907.

The following tables are appended to this report: —

TABLE 1. Lengths of parkways.
TABLE 2. Summary of plan work.
TABLE 3. Summary of vouchers.
TABLE 4. Summary of cost of engineering.
TABLE 5. Prices for items of construction.

TABLE 1. — *Length of Parkways, corrected to Dec. 1, 1907.*

DESCRIPTION.	Constructed (Miles).	Under Construction (Miles).	Remainder (Miles).	Totals (Miles).
Blue Hills: Mattapan Square to Harland Street Entrance of Blue Hills Reservation, Boston and Milton,	2.27	–	–	2.27
Fresh Pond: Mount Auburn Street to Huron Avenue, Cambridge,	.52	–	–	.52
Furnace Brook: Merrymount Park to Blue Hills Reservation, Quincy,	1.49	.84	.90	3.23
Lynn Fells Parkway: Middlesex Fells Reservation to Green Street, Stoneham and Melrose,	.52	.46	.06	1.04
Lynnway: Revere Beach Reservation to northerly side of Saugus River, Revere and Lynn,	.69	–	–	.69
Middlesex Fells: Broadway to Middlesex Fells Reservation, Somerville, Medford and Malden,	4.60	–	.51	5.11
Mystic Valley: High Street to Middlesex Fells Reservation, Medford and Winchester,	2.90	–	–	2.90
Nahant Beach: Lynn Line at Washington Street to Spring Road, Nahant,	.25	–	1.98	2.23
Neponset River: junction of River Street and Damon Street to Blue Hills Reservation,	.53	–	1.71	2.24
Revere Beach: Revere Beach Reservation to Middlesex Fells Parkway and Mystic River Reservation, Revere, Chelsea, Everett and Medford,	5.24	–	–	5.24
Winthrop Parkway: Charles Eliot Circle to Leverett Avenue, Revere,	–	–	.42	.42
Totals,	19.01	1.30	5.58	25.89

TABLE 2. — *Summary of Maps and Plans prepared during the Year ending Nov. 30, 1907, omitting Blue and Other Prints.*

	Abandonments and Conveyances.	Construction.	Entrances.	General.	Land and Settlement.	Restrictions.	Takings, including Conveyances to Commonwealth.	Topographical.	Working Plans (Office).	Totals.
Parkways.										
Alewife Brook,	–	–	–	4	109	–	7	–	9	129
Blue Hills,	1	–	–	–	–	–	1	–	–	2
Furnace Brook,	1	4	2	4	–	–	8	1	18	38
Lynn Fells,	2	5	1	–	1	–	6	–	–	15
Middlesex Fells,	1	–	–	–	–	–	5	–	1	7
Mystic Valley,	2	–	–	–	–	–	–	–	–	2
Nahant Beach,	–	1	–	–	–	–	2	–	2	5
Revere Beach,	–	–	–	–	–	7	–	–	–	7
Winthrop,	2	–	–	–	–	–	–	–	–	2
Lynnway,	–	1	–	–	–	–	–	–	–	1
Totals,	9	11	3	8	110	7	29	1	30	208
Reservations.										
Blue Hills,	–	4	–	1	–	–	–	–	–	5
Charles River,	9	8	–	1	1	–	2	–	10	31
Lynn Shore,	5	13	–	2	1	–	3	–	29	53
Middlesex Fells,	–	–	1	2	–	–	1	2	4	10
Mystic River,	–	41	–	2	–	–	2	–	31	76
Nantasket Beach,	–	2	–	–	–	–	–	–	–	2
Neponset River,	–	1	–	–	–	–	3	–	–	4
Quincy Shore,	–	11	–	–	1	–	–	1	49	62
Revere Beach,	–	2	1	1	–	–	–	–	–	4
Stony Brook,	–	–	–	2	–	–	–	–	–	2
Winthrop Shore,	–	–	–	–	–	–	1	–	–	1
Totals,	14	82	2	11	3	–	12	3	123	250
Grand totals,	23	93	5	19	113	7	41	4	153	458

TABLE 3. — *Summary of Vouchers of the Engineering Department, including, under Construction, the Entire Estimated Value of Work performed during the Year ending Nov. 30, 1907.*

	Construction.	Incidental to Engineering Department.										Grand Totals.
		Equipment.			Operating Expenses.							
		Offices.	Surveying and Drawing Instruments.	Totals.	Engineering and Surveying.	Offices.	Repairs.	Supplies.	Travel.	Incidental Expenses.	Totals.	
Parkways.												
General expense II.,	–	$91 31	$59 70	$151 01	$844 60	$39 35	$44 50	$197 68	$116 40	$6 60	$1,249 13	$1,400 14
Alewife Brook,	–	–	–	–	254 10	–	–	–	–	2 15	256 25	256 25
Blue Hills,	–	–	–	–	52 52	–	–	–	–	7 58	60 10	60 10
Blue Hills Roads,	–	–	–	–	172 80	–	–	–	5 00	6 59	184 39	184 39
Charles River Speedway,	–	–	–	–	26 90	–	–	–	–	2 01	28 91	28 91
Furnace Brook,	$4,356 59	–	–	–	1,489 74	–	–	21 95	27 00	38 27	1,576 96	5,933 55
Lynn Fells	65,785 77	–	–	–	3,802 20	–	–	73 22	216 00	72 56	4,163 98	69,949 75
Lynnway,	750 00	–	–	–	169 61	–	–	–	15 00	3 75	188 36	938 36
Middlesex Fells,	16,001 82	–	–	–	1,421 27	–	–	80 86	–	38 53	1,540 66	17,542 48
Middlesex Fells Roads,	1,802 08	–	–	–	79 00	–	–	–	–	14 43	93 43	1,895 51
Mystic Valley,	10 80	–	–	–	4,014 56	–	–	13 23	–	122 91	4,150 70	4,161 50
Nahant Beach,	4,924 85	–	–	–	1,866 93	–	–	9 26	20 00	49 81	1,946 00	6,870 85
Neponset River,	–	–	–	–	82 65	–	–	–	5 00	96	88 61	88 61
Revere Beach,	407 40	–	–	–	341 93	–	–	–	17 50	31 55	390 98	798 38
Winchester-Woburn,	–	–	–	–	484 30	–	–	–	66 60	8 80	559 70	559 70
Winthrop,	78 10	–	–	–	21 30	–	–	–	5 00	2 00	28 30	106 40
Parkway totals,	$94,117 41	$91 31	$59 70	$151 01	$15,124 41	$39 35	$44 50	$396 20	$493 50	$408 50	$16,506 46	$110,774 88
Reservations.												
General expense I.,	–	$12 33	$30 71	$43 04	$894 18	$3 10	$52 05	$308 08	$10 00	$6 25	$1,273 66	$1,316 70
Alewife Brook purification,	–	–	–	–	1,003 27	–	–	3 07	21 00	41 10	1,068 44	1,068 44

Beaver Brook,	–	–	–	–	1 75	–	–	–	–	50	2 25	2 25
Blue Hills,	–	–	–	–	19 85	–	–	–	–	2 60	22 45	22 45
Boylston Street Bridge (Charles River),	$1,241 10	–	–	–	288 02	–	–	2 00	–	9 03	299 05	1,540 15
Charles River,	4,503 98	–	–	–	1,224 55	11 50	–	54 06	–	37 39	1,327 50	5,831 48
Hart's Hill,	–	–	–	–	10 60	–	–	–	–	–	10 60	10 60
Hemlock Gorge,	–	–	–	–	5 50	–	–	–	–	50	6 00	6 00
King's Beach,	–	–	–	–	13 50	–	–	–	–	–	13 50	13 50
Lynn Shore,	86,936 14	–	–	–	4,041 28	31 44	–	171 28	384 00	70 14	4,698 14	91,634 28
Middlesex Fells,	–	–	–	–	163 63	–	–	–	–	1 60	165 23	165 23
Mystic River,	57,614 74	–	–	–	4,289 05	104 86	–	167 98	157 86	49 39	4,769 14	62,383 88
Neponset River,	–	–	–	–	89 45	–	–	–	–	9 93	99 38	99 38
Quincy Shore,	56,104 45	–	–	–	3,692 77	101 25	–	158 28	116 10	51 10	4,119 50	60,223 95
Revere Beach,	–	–	–	–	249 25	–	–	–	20 00	10 93	280 18	280 18
Stony Brook,	–	–	–	–	66 20	–	–	–	–	1 25	67 45	67 45
Winthrop Shore,	–	–	–	–	33 37	–	–	–	–	1 53	34 90	34 90
Reservation totals,	$206,400 41	$12 33	$30 71	$43 04	$16,086 22	$252 15	$52 05	$864 75	$708 96	$293 24	$18,257 37	$224,700 82
Nantasket Beach Reservation,	–	–	–	–	$124 67	–	–	–	$8 64	$4 80	$138 11	$138 11
Expense Fund.												
Lynn Shore Reservation,	–	–	–	–	$71 96	–	–	–	–	–	$71 96	$71 96
Grand totals,	$300,517 82	$103 64	$90 41	$194 05	$31,407 26	$291 50	$96 55	$1,260 95	$1,211 10	$706 54	$34,973 90	$335,685 77
Credit.												
General expense I. and II.,	–	–	–	–	–	$3 70	–	–	–	–	$3 70	$3 70
Quincy Shore Reservation,	–	–	–	–	–	50	–	–	–	–	50	50
Total credit,	–	–	–	–	–	$4 20	–	–	–	–	$4 20	$4 20
Net expenditure,	$300,517 82	$103 64	$90 41	$194 05	$31,407 26	$287 30	$96 55	$1,260 95	$1,211 10	$706 54	$34,969 70	$335,681 57

TABLE 4. — *Summary of Engineering and Surveying.*

	Abandonments and Conveyances.	Boundaries, Plans, Staking and Monuments.	Construction, incidental to.	Construction and Maintenance done by Other Departments, incidental to.	Construction, preliminary to.	General.	Land and Settlements, Surveys and Plans.	Permits.	Restrictions, Surveys and Plans.	Takings, preliminary to, and Actual.	Topographical.	Totals.
Parkways.												
General expense II.,	–	–	–	–	–	$844 60	–	–	–	–	–	$844 60
Alewife Brook,	–	–	–	–	$11 00	–	–	–	–	$243 10	–	254 10
Blue Hills,	$4 00	–	–	$11 50	–	6 42	–	$23 30	$2 30	5 00	–	52 52
Blue Hills Roads,	–	–	–	79 10	93 70	–	–	–	–	–	–	172 80
Charles River Speedway,	–	–	–	1 75	20 05	–	–	–	5 10	–	–	26 90
Furnace Brook,	3 00	–	$1,039 09	21 55	40 82	110 60	$3 50	19 50	1 75	226 93	$23 00	1,489 74
Lynn Fells,	18 50	–	3,529 29	–	171 11	–	–	4 70	–	78 60	–	3,802 20
Lynnway,	–	–	135 20	–	24 95	5 96	–	3 50	–	–	–	169 61
Middlesex Fells,	1 20	$12 00	521 37	89 85	525 70	11 92	–	144 63	–	112 10	2 50	1,421 27
Middlesex Fells Roads,	–	–	–	73 00	6 00	–	–	–	–	–	–	79 00
Mystic Valley,	3 00	–	3,802 21	63 80	130 35	1 50	–	13 70	–	–	–	4,014 56
Nahant Beach,	–	8 15	1,763 83	5 25	77 70	–	–	–	–	12 00	–	1,866 93
Neponset River,	–	–	–	79 40	–	1 75	–	–	–	–	1 50	82 65
Revere Beach,	–	–	55 69	84 75	13 92	19 42	63 95	49 60	38 60	16 00	–	341 93
Winchester-Woburn,	–	–	–	–	17 50	–	–	–	–	–	466 80	484 30
Winthrop,	17 80	–	–	–	3 50	–	–	–	–	–	–	21 30
Parkway totals,	$47 50	$20 15	$10,846 68	$509 95	$1,136 30	$1,002 17	$67 45	$258 93	$47 75	$693 73	$493 80	$15,124 41

Reservations.												
General expense I.,	–	–	–	–	–	$894 18	–	–	–	–	–	$894 18
Alewife Brook purification,	–	–	–	–	$931 07	–	–	–	–	$72 20	–	1,003 27
Beaver Brook,	–	–	–	–	–	1 75	–	–	–	–	–	1 75
Blue Hills,	–	$1 50	–	–	–	18 35	–	–	–	–	–	19 85
Boylston Street Bridge (Charles River),	–	–	$288 02	–	–	–	–	–	–	–	–	288 02
Charles River,	$66 85	13 70	797 28	$49 53	201 63	27 14	–	$45 50	–	22 92	–	1,224 55
Hart's Hill,	–	10 60	–	–	–	–	–	–	–	–	–	10 60
Hemlock Gorge,	2 00	–	–	–	–	3 50	–	–	–	–	–	5 50
King's Beach,	–	–	–	–	13 50	–	–	–	–	–	–	13 50
Lynn Shore,	31 70	15 25	2,471 08	45 35	1,400 85	1 75	$4 75	43 20	$1 65	25 70	–	4,041 28
Middlesex Fells,	–	2 20	–	–	36 28	17 50	–	6 75	–	7 00	$93 90	163 63
Mystic River,	–	34 10	1,881 78	–	2,356 42	–	–	10 75	–	6 00	–	4,289 05
Neponset River,	–	25 80	–	–	–	4 75	10 00	32 90	–	16 00	–	89 45
Quincy Shore,	–	–	3,114 67	–	512 65	60	–	8 75	–	56 10	–	3,692 77
Revere Beach,	–	26 10	47 75	38 75	10 75	3 00	70 40	–	52 50	–	–	249 25
Stony Brook,	–	3 00	58 20	–	–	5 00	–	–	–	–	–	66 20
Winthrop Shore,	–	–	–	–	–	25 62	–	2 75	–	5 00	–	33 37
Reservation totals,	$100 55	$132 25	$8,658 78	$133 63	$5,463 15	$1,003 14	$85 15	$150 60	$54 15	$210 92	$93 90	$16,086 22
Nantasket Beach Reservation,	–	–	–	$124 67	–	–	–	–	–	–	–	$124 67
Expense Fund.												
Lynn Shore Reservation,	–	–	–	$71 96	–	–	–	–	–	–	–	$71 96
Grand totals,	$148 05	$152 40	$19,505 46	$840 21	$6,599 45	$2,005 31	$152 60	$409 53	$101 90	$904 65	$587 70	$31,407 26

TABLE 5. — *Prices paid for Principal Items of Construction.*

	Parkways.					Reservations.										
	Middlesex Fells.	Lynn Fells.			Furnace Brook.	Quincy Shore.		Charles River.		Mystic River.					Lynn Shore.	
CONTRACT No.	108.	101.	102.	111.	96.	93.	105.	92a.	100.	97.	98.	99.	107.	109.	104.	110.
Ballast.																
Gravel ballast (cubic yard),	-	-	-	-	-	-	-	-	$1 00	-	-	-	-	-	-	-
Drains.																
24-inch vitrified pipe (lineal foot),	$2 00	-	-	-	-	-	-	-	2 75	-	-	-	-	-	-	-
18-inch vitrified pipe (lineal foot),	1 60	-	-	-	-	-	$1 25	-	-	-	-	-	-	-	-	-
15-inch vitrified pipe (lineal foot),	1 25	-	$1 25	$1 00	$0 75	-	75	-	2 00	-	-	-	-	-	$1 00	-
12-inch vitrified pipe (lineal foot),	60	-	85	-	60	-	50	-	-	-	-	-	-	-	60	-
10-inch vitrified pipe (lineal foot),	45	-	75	50	50	-	40	-	-	-	-	-	-	-	50	-
8-inch vitrified pipe (lineal foot),	-	-	-	-	-	-	40	-	-	-	-	-	-	-	40	-
6-inch vitrified pipe (lineal foot),	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-
Edgestones.																
Furnishing and setting, straight (lineal foot),	1 00	-	-	1 00	1 00	-	-	-	-	-	-	-	-	-	1 25	-
Furnishing and setting, curved (lineal foot),	1 50	-	-	1 30	1 25	-	-	$1 40	-	-	-	-	-	-	1 50	-
Concrete (lineal foot),	-	-	-	-	-	-	55	-	-	-	-	-	-	-	60	-
Grading.																
Earth excavation (cubic yard),	40	$0 60	26	50	50	$0 26	40	50	25	-	$0 40	$0 47	$1 00	$1 00	40	-
Filling material furnished (cubic yard),	-	-	-	-	-	37	60	-	55	-	60	-	-	-	50	-
Rock excavation (cubic yard),	1 30	-	-	-	-	-	-	1 75	-	-	-	-	-	-	-	-
Rock excavation crushed (cubic yard),	1 90	-	1 70	-	-	-	-	-	-	-	-	-	-	-	-	-

Gutters																
Cobble-stone (square yard),	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Concrete (square yard),	-	-	-	1 30	1 90	-	1 25	-	-	-	-	-	-	-	1 40	-
Lumber.																
Spruce lumber in place (1,000 feet B. M.),	-	-	-	-	-	30 00	-	-	45 00	-	-	-	-	-	-	-
Masonry.																
Quarry-faced ashler (cubic yard),	-	-	-	-	-	-	-	-	17 00	-	-	-	-	-	-	-
Rubble (cubic yard),	-	-	6 00	-	6 00	-	-	-	-	-	-	-	-	-	-	-
Concrete (cubic yard),	-	6 50	-	-	-	-	8 00	-	-	-	6 50	6 00	7 00	8 00	7 00	-
Artificial stone coping (lineal feet),	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2 20	-
Concrete steps (lineal foot),	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60	-
Moulded block concrete (cubic yard),	-	-	-	-	-	-	-	-	-	$19 50	-	-	-	40 00	-	-
Concrete catch-basins (each),	30 00	-	-	40 00	25 00	-	35 00	-	-	-	-	-	-	-	30 00	-
Concrete catch-basins 2.0 feet deep (each),	-	-	-	-	-	-	15 00	-	-	-	-	-	-	-	-	-
Concrete piles (lineal foot),	-	-	-	-	-	-	-	-	-	-	-	-	45	-	-	-
Spruce Piles (in Place).																
Length 20 to 25 feet inclusive,	-	-	-	-	-	-	-	-	5 00	-	-	-	-	-	-	-
Length 30 to 35 feet inclusive,	-	-	-	-	-	-	-	-	-	-	4 50	-	-	-	-	-
Surfacing.																
Gravel roadway (square yard),	45	-	-	-	25	-	30	35	-	-	-	-	-	-	-	-
Broken-stone roadway (square yard),	-	-	-	-	-	-	-	55	-	-	-	-	-	-	40	-
Gravel walk (square yard),	-	-	-	-	20	-	30	30	-	-	-	-	-	-	30	-
Loam (cubic yard),	30	-	-	30	50	-	30	-	-	-	-	-	-	-	30	-
Loam, including furnishing (cubic yard),	1 00	-	-	1 25	1 15	-	1 25	1 35	-	-	-	-	-	-	1 30	-
Granolithic sidewalk (square yard),	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1 30	-
Fences.																
Iron pipe rail (lineal foot),	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$1 43

FINANCIAL STATEMENT.

Dec. 1, 1906, to Dec. 1, 1907.

Metropolitan Parks Loan Fund,	$8,765,000 00
Receipts added to loan before June 1, 1901,	198,334 01
	$8,963,334 01

Expenditures.

Blue Hills Reservation: —				
Engineering: —				
Pay rolls,	$22 60			
Expenses,	2 05			
		$24 65		
Land experts,		25 00		
			$49 65	
Middlesex Fells Reservation: —				
Engineering: —				
Pay rolls,	$153 38			
Expenses,	1 00			
		$154 38		
Landscape Architects: —				
Services,	$1,387 29			
Expenses,	174 29			
		1,561 58		
			1,715 96	
Revere Beach Reservation: —				
Construction: —				
Contract, E. W. Everson & Co.,	$1,500 00			
Labor and materials,	128 13			
		$1,628 13		
Engineering: —				
Pay rolls,	$185 43			
Expenses,	87 05			
		272 48		
			1,900 61	
Stony Brook Reservation: —				
Engineering: —				
Pay rolls,	$63 20			
Expenses,	4 25			
		$67 45		
			67 45	
Beaver Brook Reservation: —				
Engineering: —				
Pay rolls,	$3 92			
Expenses,	55			
		$4 47		
Landscape Architects, expenses,		2 20		
			6 67	
Amounts carried forward,			$3,740 34	$8,963,334 01

Amounts brought forward,				$3,740 34	$8,963 334 01
Hemlock Gorge Reservation: —					
Engineering: —					
Pay rolls,		$5 50			
Expenses,		50			
			$6 00		
Landscape Architects, services,			10 00		
				16 00	
Charles River Reservation: —					
Land,			$200 00		
Construction: —					
Contract, Broderick & Donovan,		$10,317 10			
Labor and materials,		1,184 00			
			11,501 10		
Engineering: —					
Pay rolls,		$1,370 33			
Expenses,		50 85			
			1,421 18		
Landscape Architects: —					
Services,		$527 90			
Expenses,		31 29			
			559 19		
Legal,			400 00		
Miscellaneous,			54 06		
				14,135 53	
Neponset River Reservation: —					
Land,			$3,368 57		
Engineering: —					
Pay rolls,		$54 80			
Expenses,		8 73			
			63 53		
				3,432 10	
Mystic River Reservation: —					
Land,			$2,750 00		
Construction: —					
Contracts: —					
Austin Engineering and Construction Co.,	$11,307 55				
Coleman Bros.,	30,629 09				
Rowe & Perini,	9,781 45				
		$51,718 09			
Labor and materials,		6,540 04			
			58,258 13		
Engineering: —					
Pay rolls,		$5,099 86			
Expense,		1,184 05			
			6,283 91		
Landscape Architects: —					
Services,		$94 90			
Expenses,		8 50			
			103 40		
Wheelwright & Haven, architects,			254 50		
Advertising,			141 50		
Miscellaneous,			89 47		
				67,880 91	
Lynn Shore Reservation: —					
Land,			$32,500 00		
Construction: —					
Contract, Coleman Bros.,		$64,037 11			
Labor and materials,		1,757 63			
			65,794 74		
Amounts carried forward,			$98,294 74	$89,204 88	$8,963,334 01

Amounts brought forward,			$98,294 74	$89,204 88	$8,963,334 01
Engineering: —					
Pay rolls,		$3,952 46			
Expenses,		752 26			
			4,704 72		
Landscape Architects: —					
Services,		$281 84			
Expenses,		8 35			
			290 19		
Legal,			7 25		
Land experts,			450 00		
Riprap,			146 09		
Advertising,			185 08		
Miscellaneous,			53 95		
				104,132 02	
Quincy Shore Reservation: —					
Land,			$2,071 71		
Construction: —					
Contracts: —					
Coleman Bros.,	$39,945 75				
Ruggles & Fallon,	247 21				
Newell & Snowling Construction Co.,	11,788 89				
		$51,981 85			
Labor and materials,		4,341 07			
			56,322 92		
Engineering: —					
Pay rolls,		$3,765 50			
Expenses,		482 76			
			4,248 26		
Land experts,			33 00		
Architects,			25 00		
Advertising,			144 37		
Miscellaneous,			50 30		
				62,895 56	
Winthrop Shore Reservation: —					
Engineering: —					
Pay rolls,		$23 95			
Expenses,		88			
			$24 83		
				24 83	
King's Beach Reservation: —					
Engineering, pay rolls,			$13 50		
				13 50	
Boylston Street Bridge: —					
Construction: —					
Contract, D. R. Courtney,		$1,492 09			
Labor and materials,		307 43			
			$1,799 52		
Engineering: —					
Pay rolls,		$435 85			
Expenses,		26 38			
			462 23		
				2,261 75	
Alewife Brook purification: —					
Engineering: —					
Pay rolls,		$1,003 27			
Expenses,		65 17			
			$1,068 44		
Land experts,			320 00		
				1,388 44	
Amounts carried forward,				$259,920 98	$8,963,334 01

Amounts brought forward,			$259,920 98	$8,963,334 01
General expense: —				
Engineering: —				
Pay rolls,	$852 04			
Expenses,	404 89			
		$1,256 93		
Legal,		2,729 49		
Claims,		1,025 00		
			5,011 42	
			$264,932 40	
Amounts charged to Dec. 1, 1906,			8,332,114 61	
				8,597,047 01
Balance in hands of State Treasurer,				$366,287 00

Metropolitan Parks Loan Fund, Series II.

Metropolitan Parks Loan Fund, Series II.,	$5,085,000 00
Receipts added to loan, before June 1, 1901,	29,907 41
	$5,114,907 41

Expenditures.

Blue Hills Parkway: —				
Engineering: —				
Pay rolls,	$51 72			
Expenses,	7 48			
		$59 20		
			$59 20	
Middlesex Fells Parkway: —				
Land,		$5,394 04		
Construction: —				
Contract, Rowe & Perini,	$4,982 06			
Labor and materials,	606 13			
		5,588 19		
Engineering: —				
Pay rolls,	$1,148 83			
Expenses,	56 92			
		1,205 75		
Landscape Architects: —				
Services,	$286 92			
Expenses,	26 53			
		313 45		
Tarvia,		1,252 18		
Advertising,		144 60		
Miscellaneous,		58 96		
			13,957 17	
Mystic Valley Parkway: —				
Construction: —				
Contract, Coleman Bros.,	$4,000 00			
Labor and materials,	38 18			
		$4,038 18		
Engineering: —				
Pay rolls,	$3,138 18			
Expenses,	113 59			
		3,251 77		
Landscape Architects: —				
Services,	$43 40			
Expenses,	45			
		43 85		
Amounts carried forward,		$7,333 80	$14,016 37	$5,114,907 41

Amounts brought forward,		$7,333 80	$14,016 37	$5,114,907 41
Tarvia,		402 00		
Winchester Fund: —				
Bacon Street,	$2,457 52			
Bath-houses and cement seats,	401 63			
Canoe landing,	95 88			
Office building,	32 25			
Substation,	920 98			
Shrubs,	191 50			
		4,099 76		
			11,835 56	
Revere Beach Parkway: —				
Land,		$593 16		
Engineering: —				
Pay rolls,	$419 05			
Expenses,	49 52			
		468 57		
Legal,		333 25		
			1,394 98	
Neponset River Parkway: —				
Engineering: —				
Pay rolls,	$81 15			
Expenses,	5 96			
		$87 11		
			87 11	
Fresh Pond Parkway: —				
Landscape Architects: —				
Services,	$4 88			
Expenses,	40			
		$5 28		
			5 28	
Furnace Brook Parkway: —				
Land,		$10,829 28		
Construction: —				
Contract, Hugh Nawn Cons. Co.,	$13,625 75			
Labor and materials,	4,062 72			
		17,688 47		
Engineering: —				
Pay rolls,	$1,948 16			
Expenses,	120 21			
		2,068 37		
Land experts,		25 00		
Architects,		125 00		
Substation, part payment,		500 50		
			31,236 62	
Nahant Beach Parkway: —				
Construction: —				
Contract, Michael McDonough,	$4,267 90			
Labor and materials,	600 95			
		$4,868 85		
Engineering: —				
Pay rolls,	$1,554 32			
Expenses,	74 39			
		1,628 71		
Legal,		3 25		
Pumping plant,		532 68		
Advertising,		3 50		
Drinking fountain,		56 00		
			7,092 99	
Lynn Fells Parkway: —				
Land,		$4,149 00		
Amounts carried forward,		$4,149 00	$65,668 91	$5,114,907 41

Amounts brought forward, ...			$4,149 00	$65,668 91	$5,114,907 41
Construction: —					
Contracts: —					
Coleman Bros., .	$4,588 30				
Rowe & Perini, .	34,809 81				
T. Stuart & Son,	1,527 08				
		$40,925 19			
Labor and materials, . . .		12,345 92			
			53,271 11		
Engineering: —					
Pay rolls, ...		$3,370 38			
Expenses, ...		335 78			
			3,706 16		
Landscape Architects: —					
Services, ...		$73 50			
Expenses, ...		7 48			
			80 98		
Legal, ...			4 60		
				61,211 85	
Winthrop Parkway: —					
Land, ...			$300 00		
Construction, labor and materials, . . .			78 10		
Engineering: —					
Pay rolls, ...		$24 55			
Expenses, ...		7 00			
			31 55		
Land experts, ...			25 00		
				434 65	
Lynnway: —					
Construction, labor and materials, . . .			$750 00		
Engineering: —					
Pay rolls, ...		$229 44			
Expenses, ...		18 75			
			248 19		
Legal, ...			186 38		
				1,184 57	
Charles River Speedway: —					
Engineering: —					
Pay rolls, ...		$26 90			
Expenses, ...		2 01			
			$28 91		
				28 91	
Blue Hills Roads: —					
Engineering: —					
Pay rolls, ...		$172 80			
Expenses, ...		11 59			
			$184 39		
				184 39	
Middlesex Fells Roads: —					
Construction, labor and materials, . . .			$138 50		
Engineering: —					
Pay rolls, ...		$79 00			
Expenses, ...		14 43			
			93 43		
Resurfacing of Main Street, ...			3,785 08		
Oiling roads, ...			99 43		
				4,116 44	
General expense: —					
Engineering: —					
Pay rolls, ...		$1,346 59			
Expenses, ...		665 85			
			$2,012 44		
Amounts carried forward, ...			$2,012 44	$132,829 72	$5,114,907 41

Amounts brought forward,		$2,012 44	$132,829 72	$5,114,907 41
Landscape Architects: —				
Services,	$107 46			
Expenses,	1 31			
		108 77		
Legal,		2,388 16		
Claims,		1,025 00		
			5,534 37	
			$138,364 09	
Amount charged to Dec. 1, 1905,			4,503,095 77	
				4,641,459 86
Balance in hands of State Treasurer,				$473,447 55

Metropolitan Parks System Maintenance.

Appropriation Dec. 1, 1906, to Dec. 1, 1907,	$319,011 68

Expenditures.

General expense: —				
Police: —				
Pay rolls,	$57,590 38			
Equipments,	5,586 59			
		$63,176 97		
Salaries,		10,293 18		
Rent, lighting and care of offices,		3,002 52		
Annual report,		1,100 62		
Telephones,		657 51		
Stationery and printing,		463 94		
Postage, etc.,		341 82		
Travelling,		316 23		
Maps and books,		289 91		
Extra clerical assistance,		228 85		
Filing cabinets, cards, etc.,		197 89		
Photographs,		65 50		
Account books,		47 35		
Advertising rules,		41 38		
Office repairs,		40 24		
Towel supply,		39 30		
Registration of automobiles and licenses,		26 50		
Shelves,		18 00		
Binder and punch,		14 35		
Typewriter repairs,		13 04		
Office supplies,		12 97		
Chairs,		12 50		
Wardrobe,		11 70		
Spring water,		10 25		
Desk lamps,		10 00		
Cleaning carpet,		8 10		
Rent of typewriter,		8 00		
Suit case,		8 00		
Rubber stamps,		6 20		
Typewriter supplies,		5 60		
Shellacking floor,		5 00		
Packing books and moving,		5 00		
			$80,478 42	
Amounts carried forward,			$80,478 42	$319,011 68

Amounts brought forward,			$80,478 42	$319,011 68
Blue Hills Reservation: —				
Labor,	$17,948 83			
Teaming,	1,227 14			
Keep of horses,	3,646 14			
		$22,822 11		
Labor and supplies, gypsy and brown-tail moth work,		12,193 31		
General supplies,		2,145 36		
Pumping engine and horse wood-saw outfit,		500 00		
Shrubs,		434 50		
Telephones,		300 82		
Lighting offices,		178 12		
Snow plows,		130 00		
Repairs,		116 80		
Water rates,		83 45		
Stationery and printing,		64 01		
Express,		41 17		
Laundry,		34 50		
Canvas suits,		15 00		
Travelling,		12 75		
Game warden,		1 00		
			39,072 90	
Middlesex Fells Reservation: —				
Labor and supplies, gypsy and brown-tail moth work,		$95,351 54		
Labor,	$13,660 66			
Teaming,	3,638 62			
Keep of horses,	1,753 27			
		19,052 55		
Watering,		1,595 97		
Lighting,		656 97		
General supplies,		2,308 01		
Telephones,		181 24		
Lighting offices,		129 12		
Travelling,		117 83		
Express,		85 73		
Stationery and printing,		79 29		
Repairs,		44 72		
Shed roof at headquarters,		44 00		
Water rates,		40 64		
Cleaning cesspool,		25 00		
Physician,		3 00		
Post-office box,		1 70		
Checking bundles,		20		
			119,717 51	
Revere Beach Reservation: —				
Labor,	$11,230 21			
Keep of horses,	768 32			
		$11,998 53		
Watering,		2,485 66		
Lighting,		5,179 70		
General supplies,		1,495 39		
Telephones,		462 12		
Travelling,		134 22		
Lighting offices,		70 00		
Stationery and printing,		59 74		
Water rates,		47 00		
Express,		44 84		
Laundry,		34 30		
Damages to dress,		15 00		
Amounts carried forward,		$22,026 50	$239,268 83	$319,011 68

Amounts brought forward,		$22,026 50	$239,268 83	$319,011 68
Road roller inspection,		5 00		
Cleaning suit,		4 00		
Certified copies,		1 25		
			22,036 75	
Stony Brook Reservation: —				
Labor,	$3,225 00			
Keep of horses,	798 15			
		$4,023 15		
Labor and supplies, gypsy and brown-tail moth work,		2,579 83		
General supplies,		380 04		
Telephones,		63 69		
Water rates,		42 00		
Repairs,		8 75		
Removing soil,		5 00		
			7,102 46	
Beaver Brook Reservation: —				
Labor,	$1,579 70			
Keep of horses,	219 88			
		$1,799 58		
Labor and supplies, gypsy and brown-tail moth work,		888 51		
General supplies,		304 00		
Telephones,		51 52		
Water rates,		19 92		
Repairs,		13 15		
Stationery and printing,		10 36		
Travelling,		4 80		
Sewer rates,		4 50		
			3,096 34	
Charles River Reservation: — Riverside Section: —				
Labor,	$5,086 56			
Teaming,	1,276 02			
Keep of horses,	339 06			
		$6,701 64		
Labor and supplies, gypsy and brown-tail moth work,		2,989 01		
General supplies,		1,375 78		
Lighting offices,		221 52		
Telephones,		128 39		
Travelling,		82 79		
Stationery and printing,		76 42		
Water rates,		49 73		
Landscape Architects, services,		48 12		
Express,		34 05		
Repairs,		25 03		
Physician,		22 00		
Lighting,		19 04		
			11,773 52	
Charles River Reservation: — Speedway Section: —				
Labor,	$9,377 42			
Teaming,	1,190 25			
Keep of horses,	1,565 75			
		$12,133 42		
Watering,		2,249 28		
Lighting,		2,286 90		
General supplies,		1,641 71		
Amounts carried forward,		$18,311 31	$283,277 90	$319,011 68

Amounts brought forward,		$18,311 31	$283,277 90	$319,011 68
Labor and supplies, gypsy and brown-tail moth work,		1,499 95		
Loam,		700 00		
Repairs,		147 50		
Telephones,		118 42		
Water rates,		107 50		
Lighting offices,		92 61		
Stationery and printing,		56 82		
Rebuilding fence,		48 75		
Laundry,		47 44		
Travelling,		22 20		
Canvas suits,		15 00		
Express,		2 25		
			21 169 75	
Neponset River Reservation: —				
Labor,		$730 00		
Labor and supplies, gypsy and brown-tail moth work,		321 50		
Telephones,		33 30		
Water rates,		6 88		
General supplies,		6 85		
Stationery and printing,		4 21		
			1,102 74	
Mystic River Reservation: —				
Labor and supplies, gypsy and brown-tail moth work,		$46 29		
Telephones,		41 25		
			87 54	
Lynn Shore Reservation: —				
Labor,	$1,398 31			
Teaming,	85 90			
Keep of horses,	254 20			
		$1,738 41		
Watering,		780 43		
Lighting,		1,148 00		
General supplies,		257 68		
Stationery and printing,		3 20		
			3,927 72	
Quincy Shore Reservation: —				
Labor,	$809 50			
Teaming,	10 00			
		$819 50		
General supplies,		94 43		
Stationery and printing,		4 01		
			917 94	
Winthrop Shore Reservation: —				
Labor,	$2,847 92			
Teaming,	59 50			
Keep of horses,	183 25			
		$3,090 67		
Watering,		700 21		
Lighting,		631 95		
General supplies,		357 85		
Tar kettle,		225 00		
Telephones,		22 03		
Stationery and printing,		6 00		
			5,033 71	
Apportionment Commission bill, one-half,			838 68	
				316,355 98
Balance,				$2,655 70

Band Concerts.

Appropriation,				$25,000 00
Blue Hills Division: —				
Band,		$936 00		
Band stand, Blue Hill,	$506 00			
Chairs,	30 00			
Shingle stain,	6 00			
Water cooler,	3 60			
		545 60		
			$1,481 60	
Middlesex Fells Division: —				
Band,		$1,939 00		
Band stands, Fellsmere and Manchester Field,	$1,133 60			
Architects,	79 17			
Chairs,	62 50			
Shades,	8 16			
Setting up portable band stand and delivering chairs, Cradock Field,	28 00			
Storing band stand and chairs,	28 00			
		1,339 43		
Lighting,		21 23		
			3,299 66	
Revere Beach Reservation: —				
Band,		$6,830 00		
Chairs,		13 00		
Lighting,		36 99		
			6,879 99	
Beaver Brook Reservation: —				
Band,		$964 00		
Band stand,	$525 00			
Architects,	50 00			
Chairs,	30 00			
		605 00		
			1,569 00	
Charles River Reservation, Riverside Division: —				
Band,		$2,489 95		
Band stand, Fox Island (part),		191 50		
Lighting,		12 00		
			2,693 45	
Charles River Reservation, Speedway Division: —				
Band,		$668 00		
Band stand: —				
Chairs,	$36 00			
Plank, timber and joists,	49 67			
Lamp chimneys,	1 00			
Lanterns,	42 25			
Lettering signs,	3 80			
		132 72		
			800 72	
Nahant Beach Parkway: —				
Band,		$1,456 00		
			1,456 00	
Nantasket Beach Reservation: —				
Band,		$5,990 00		
Band stand addition,		427 25		
Card board,		9 00		
			6,426 25	
				24,606 67
Balance,				$393 33

METROPOLITAN PARKS BOULEVARD MAINTENANCE.

Appropriation, Dec. 1, 1906, to Dec. 1, 1907, ... $133,367 67

Expenditures.

General expense: —				
Police: —				
Pay rolls,	$24,238 49			
Equipment,	4,236 55			
		$28,475 04		
Salaries,		9,375 12		
Rent, lighting, and care of offices,		2,900 33		
Stationery and printing,		820 02		
Telephones,		678 41		
Auditing,		623 80		
Maps and books,		565 21		
Filing cabinets, cards, etc.,		270 49		
Extra clerical assistance,		250 78		
Travelling,		241 07		
Typewriter,		98 42		
Advertising rules,		92 84		
Stock room shelves,		81 55		
Postage, etc.,		78 95		
Towel supply,		45 85		
Registration of automobiles and licenses,		44 50		
Building partition, Room 407,		38 00		
Ice,		30 10		
Ceiling chandelier,		27 50		
Typewriter supplies,		21 00		
Book cases,		20 00		
Storing awnings,		16 10		
Office supplies,		14 06		
Spring water,		12 35		
Rent of typewriter,		10 50		
Illustrated lecture,		10 00		
Copy cloths,		9 00		
Typewriter repairs,		8 96		
Photographs and slides,		8 57		
Office repairs,		7 93		
Mailing tubes,		6 85		
Leather hand bag,		6 50		
Shades,		5 27		
Hat tree,		3 38		
Rubber stamps,		1 45		
			$44,899 90	
Blue Hills Parkway: —				
Labor,	$2,164 90			
Teaming,	664 14			
Keep of horses,	697 89			
		$3,526 93		
Watering,		2,220 71		
Lighting,		2,542 94		
General supplies,		653 21		
Labor and supplies, gypsy and brown-tail moth work,		200 00		
Repairs,		15 00		
Lighting offices,		11 67		
Water rates,		11 17		
Stationery and printing,		10 31		
			9,191 94	
Amounts carried forward,			$54,091 84	$133,367 67

Amounts brought forward,			$54,091 84	$133,367 67
Middlesex Fells Parkway: —				
Labor,	$5,974 11			
Teaming,	1,973 48			
Keep of horses,	550 15			
		$8,497 74		
Watering,		2,978 00		
Lighting,		6,013 26		
Labor and supplies, gypsy and brown-tail moth work,		998 91		
General supplies,		996 91		
Repairs,		185 77		
Telephones,		85 51		
Water rates,		32 66		
Stationery and printing,		30 10		
Lighting offices,		15 95		
Landscape Architects: —				
Services,	$15 23			
Expenses,	65			
		15 88		
Express,		5 65		
			19,856 34	
Mystic Valley Parkway: —				
Labor,	$3,336 90			
Teaming,	636 38			
Keep of horses,	256 31			
		$4,229 59		
Watering,		1,733 68		
Lighting,		2,662 54		
Labor and supplies, gypsy and brown-tail moth work,		1,996 18		
General supplies,		493 99		
Telephones,		84 35		
Repairs,		5 80		
			11,206 13	
Revere Beach Parkway: —				
Labor,	$8,225 81			
Teaming,	172 88			
Keep of horses,	866 77			
		$9,265 46		
Watering,		4,883 41		
Lighting,		5,508 16		
General supplies,		751 16		
Block pavement,		407 40		
Repairs,		296 25		
Trees,		125 65		
Labor and supplies, gypsy and brown-tail moth work,		98 25		
Stationery and printing,		86 95		
Water rates,		5 00		
			21,427 69	
Neponset River Parkway: —				
Labor,		$624 00		
Watering,		415 32		
Lighting,		448 76		
General supplies,		73 13		
Landscape Architects, expenses,		3 00		
			1,564 21	
Amounts carried forward,			$108,146 21	$133,367 67

Amounts brought forward,			$108,146 21	$133,367 67
Nahant Beach Parkway: —				
Labor,	$2,272 08			
Teaming,	55 00			
Keep of horses,	557 12			
		$2,884 20		
Watering,		809 31		
Lighting,		944 34		
Park seats,		450 00		
General supplies,		446 43		
Stationery and printing,		7 42		
Landscape Architects, services,		3 70		
Travelling,		3 15		
Express,		1 75		
			5,550 30	
Fresh Pond Parkway: —				
Labor,	$673 50			
Teaming,	76 50			
Keep of horses,	66 55			
		$816 55		
Watering,		499 38		
Lighting,		448 76		
Labor and supplies, gypsy and brown-tail moth work,		199 99		
General supplies,		147 45		
Shrubs,		84 45		
Repairs,		12 64		
Stationery and printing,		5 34		
			2,214 56	
Furnace Brook Parkway: —				
Labor,	$1,679 37			
Teaming,	147 27			
Keep of horses,	3 15			
		$1,829 79		
Watering,		518 85		
Lighting,		1,166 68		
General supplies,		718 49		
Snow plow,		130 00		
			4,363 81	
Lynnway: —				
Labor,	$5,801 90			
Keep of horses,	32 95			
		$5,834 85		
Watering,		1,102 35		
Lighting,		837 70		
General supplies,		241 30		
Trees,		52 90		
Stationery and printing,		4 17		
			8,073 27	
Apportionment Commission, one-half,			838 67	
				129,186 82
Balance,				$4,180 85

Nantasket Beach Maintenance.

Appropriation, Dec. 1, 1906, to Dec. 1, 1907,			$21,900 00

Expenditures.

Labor,	$4,094 03		
Teaming,	101 50		
Keep of horses,	83 65		
		$4,279 18	
Police: —			
Pay rolls,	$11,059 06		
Equipment,	736 50		
		11,795 56	
Watering,		1,215 70	
Lighting,		1,728 32	
General supplies,		1,258 54	
Nantasket Avenue repairs,		627 00	
Rent, superintendent's house,		399 96	
Water rates,		315 50	
Telephones,		120 05	
Loam,		60 00	
Repairs,		29 45	
Express,		8 70	
Stationery and printing,		4 65	
Freight,		3 35	
			21,845 96
Balance,			$54 04

Wellington Bridge Maintenance.

Appropriation, Dec. 1, 1906, to Dec. 1, 1907,			$5,192 40

Expenditures.

Labor,		$2,479 34	
Watering,		141 48	
Lighting,		897 50	
General supplies,		410 44	
Power for draw,		250 00	
Telephones,		58 88	
Water rates,		14 52	
Stationery and printing,		12 51	
		$4,264 67	
Apportionment Commission,		742 40	
			5,007 07
Balance,			$184 33

METROPOLITAN PARKS EXPENSE FUND.

Balance Dec. 1, 1906,				$70,080 41
Receipts, Dec. 1, 1906, to Dec. 1, 1907,				99,530 91
				$169,611 32

Expenditures.

Police: —				
Horses,		$1,400 00		
Police signal desk,		983 00		
Motor cycles,		978 01		
Text books, bandages and examinations,		181 60		
Fines repaid to Newton Police Court,		130 00		
Rent and care of armory for drill,		100 00		
Transporting prisoners,		58 07		
Legal expenses,		50 00		
Speed gauge,		43 76		
Medical advice,		25 00		
Miscellaneous expenses,		15 40		
			$3,999 84	
Blue Hills Reservation: —				
Repairing buildings,		$76 31		
Water rates.		42 35		
			118 66	
Middlesex Fells Reservation: —				
Animals added to collection,		$169 00		
Shrubs,		128 85		
Repairing buildings,		147 20		
Trees,		39 50		
Water rates,		32 75		
Cleaning cesspool,		9 00		
			526 30	
Revere Beach Reservation: —				
Bath-house: —				
Pay rolls,	$17,447 84			
Alterations and repairs,	5,010 79			
Fireproofing walls,	3,000 00			
Bathing suits,	2,921 49			
Lighting,	1,703 55			
Plumbing,	1,663 00			
Coal,	1,106 70			
Engine room,	1,015 49			
Towels,	625 00			
Architects,	587 89			
Electrical work,	525 55			
Stockings,	352 60			
Life saving station,	345 00			
Telephone system,	334 00			
Valuable envelopes,	298 52			
Ice,	298 00			
Lumber,	218 81			
Findings,	198 40			
Tickets,	194 05			
Soap,	190 97			
Paint,	170 76			
Medicines and attendance,	138 57			
Disinfectant,	134 10			
Doors,	131 35			
Toilet paper,	130 77			
Hardware,	122 91			
Amounts carried forward,	$38,866 11		$4,644 80	$169,611 32

Amounts brought forward,	$38,866 11	$4,644 80	$169,611 32
Bath-house — *Con.*			
Plastering,	120 00		
Fire hose,	92 00		
Stationery,	89 45		
Baskets,	76 46		
Bathing caps,	75 00		
Key bands,	73 84		
Furniture,	67 27		
Water rates,	62 40		
Caps and bands, employees,	58 00		
Acids,	53 64		
Mirrors,	50 72		
Brass checks,	45 00		
Clothing,	44 75		
Telephones,	35 48		
Drinking fountain,	32 50		
Blankets,	31 94		
Transom,	31 70		
Polish,	30 00		
Fire extinguishers,	29 65		
Brushes,	28 84		
Oil,	27 00		
Brooms,	26 05		
Frames,	25 00		
Extra work in children's room,	23 00		
Cheese cloth,	22 50		
Castors,	21 37		
Toys for children's room,	20 82		
Plugs, etc.,	20 64		
Examination electric wiring,	20 00		
Mantles,	19 47		
Rugs,	16 20		
Key blanks,	16 20		
Employees' badges,	13 90		
Towel rack,	12 75		
Twine,	12 50		
Stamp ink,	12 00		
Numbering lockers,	12 00		
Electric iron,	11 50		
Soda,	11 20		
Superintendent's expenses,	11 10		
Paint remover,	10 50		
Watch clock dials,	10 45		
Wringers,	10 30		
Stencils,	10 25		
Hangers,	9 18		
Feather dusters,	8 80		
Iron rails,	8 70		
Tide cards,	8 50		
Gauge glasses,	8 10		
Step ladders,	8 00		
Matches,	7 25		
Pails,	7 00		
Electric heater,	6 00		
Plumber's friends,	6 00		
Electric fan,	6 00		
Water,	5 60		
Car fares,	4 60		
Window shades and cords,	4 31		
Push buttons, etc.,	4 23		
Amounts carried forward,	$40,493 72	$4,644 80	$169,611 32

Amounts brought forward,	$40,493 72		$4,644 80	$169,611 32
Bath-house — *Con.*				
Mop handles,	4 00			
Watch oil,	3 75			
Brushes,	3 00			
Photograph supplies,	2 93			
Damages to watch,	2 75			
Valuable checks,	2 61			
Planting,	2 50			
Cement,	2 25			
Batteries,	1 89			
Combs,	1 75			
Brass globes,	1 70			
Express,	1 51			
Coin wrappers,	1 50			
Charcoal,	1 20			
Starch,	1 20			
Oiler,	1 06			
Dipper,	75			
Glass funnels,	50			
Pins,	45			
Tumblers,	41			
Moth balls,	40			
Steel spring,	25			
Tags,	23			
Rubber stamp,	20			
Miscellaneous,	11 56			
		$40,544 07		
Gasolene tank,		180 40		
Protecting sand,		168 20		
Dory,		92 00		
			40,984 67	
Stony Brook Reservation: —				
Water rates,		$6 00		
Repairing buildings,		3 23		
			9 23	
Beaver Brook Reservation: —				
Lavatory,		$25 60		
			25 60	
Hemlock Gorge Reservation: —				
Repairing buildings,		$210 00		
Water rates,		11 50		
			221 50	
Charles River Reservation: —				
Riverside Section: —				
Addition to headquarters building,		$1,754 15		
Planting,		934 20		
Rent, superintendent's house,		360 00		
Gasolene launch and engine,		800 00		
Band stand,		210 00		
Wagon, harness, etc.,		174 80		
Furnace, Seaverns house,		123 00		
Architects,		166 15		
Water rates,		71 85		
Boom, Upper Falls,		62 15		
Changes in boat house,		43 20		
Repairing buildings,		41 80		
Saddle,		36 50		
Engine supplies for launch,		27 26		
Amounts carried forward.		$4,805 06	$45,885 80	$169,611 32

Amounts brought forward,		$4,805 06	$45,885 80	$169,611 32
Hauling launch,		25 00		
Side lights for launch,		5 06		
			4,835 12	
Speedway Section: —				
Asphaltoilene,		$380 50		
			380 50	
Neponset River Reservation: —				
Repairing buildings,		$199 27		
Water rates,		45 61		
			244 88	
Mystic River Reservation: —				
Repairing buildings,		$66 34		
Water rates,		31 00		
			97 34	
Lynn Shore Reservation: —				
Engineering: —				
Pay rolls,	$71 96			
Expenses,	1 15			
		$73 11		
Riprap,		506 88		
Part cost of automobile,		693 00		
Stacey Brook repairs,		12 01		
Advertising sale of buildings,		15 40		
			1,300 40	
Blue Hills Parkway: —				
Substation,		$1,593 62		
			1,593 62	
Middlesex Fells Parkway: —				
Loam,		$82 00		
			82 00	
Mystic Valley Parkway: —				
Water rates,		$11 00		
			11 00	
Revere Beach Parkway: —				
Tarvia,		$912 33		
Labor,		224 44		
Stone,		164 50		
			1,301 27	
Neponset River Parkway: —				
Fence, Hemenway Pond,		$517 25		
Repairing buildings,		203 42		
			720 67	
Nahant Beach Parkway: —				
Bath-house: —				
Pay rolls,	$3,850 51			
Laundry work,	486 32			
Towels,	208 33			
Coal,	173 75			
Lighting,	115 30			
Telephones,	82 58			
Corrugated matting,	78 24			
Paint,	72 57			
Stockings,	55 00			
Hardware,	53 20			
Oval electric balls,	51 00			
Architects,	50 00			
Uniforms,	44 20			
Water rates,	38 05			
Lumber,	37 31			
Repairs,	37 30			
Amounts carried forward,	$5,433 66		$56,452 60	$169,611 32

Amounts brought forward,	$5,433 66		$56,452 60	$169,611 32
Bath-house — *Con.*				
Engine room,	34 86			
Key bands,	33 05			
Hose,	31 00			
Bathing caps,	30 00			
Toilet paper,	29 60			
Disinfectant,	29 30			
Flags,	26 15			
Sockets,	23 76			
Oil,	22 75			
Medicines and attendance,	15 15			
Gasolene,	14 92			
Findings,	12 50			
Fuses,	11 77			
Stationery,	10 49			
Paint brushes,	10 25			
Brooms,	9 50			
Electric stove,	6 15			
Feather dusters,	5 42			
Tide cards,	5 10			
Cleaning cesspool,	5 00			
Brushes and combs,	4 75			
Soap,	4 00			
Dials,	4 00			
Meter rent,	4 00			
Field glass,	3 30			
Gold bronze,	2 90			
Pails,	2 50			
Wringer,	2 33			
Rubber gloves,	2 25			
Shinola,	2 00			
Cups,	1 15			
Brass nozzles,	1 15			
Polish,	1 00			
Dipper,	80			
Shoe brushes,	77			
		$5,837 28		
Planting,		300 00		
Part cost of automobiles,		200 00		
Work on shrubs,		50 00		
Drinking fountain,		34 90		
			6,422 18	
Nantasket Beach Reservation: —				
Bath-house: —				
Pay rolls,	$5,088 40			
Coal,	1,246 00			
Bathing suits,	468 50			
Water rates,	405 82			
Towels,	150 00			
Stockings,	141 90			
Paint,	94 47			
Stationery,	91 92			
Lighting,	58 75			
Uniforms and badges,	55 67			
Engine room,	58 70			
Ice,	48 56			
Soap,	44 63			
Repairs,	39 00			
Medicines and attendance,	35 47			
Laundry,	31 95			
Amounts carried forward,	$8,059 74		$62,874 78	$169,611 32

Amounts brought forward,	$8,059 74		$62,874 78	$169,611 32
Bath-house — *Con.*				
Hardware,	28 09			
Disinfectant,	27 50			
Duck coats,	27 00			
Telephones,	27 00			
Caps and bands,	24 00			
Tickets,	21 60			
Key bands,	20 82			
Findings,	18 44			
Hose,	15 50			
Bathing caps,	15 00			
Stamp ink,	12 00			
Rubbers for castors,	9 00			
Labor on piping,	9 00			
Brooms,	8 55			
Express,	7 24			
Bathing checks,	5 78			
Towel crash,	4 59			
Postage stamps,	4 00			
Acme sprayers,	3 73			
Pails,	3 30			
Clothes line,	2 78			
Polish,	2 50			
Paint brushes,	2 49			
Oil,	1 65			
Hair brushes,	1 50			
Dust pans,	1 08			
		$8,363 88		
Engineering: —				
Pay rolls,	$212 99			
Expenses,	13 44			
		226 43		
Labor, on Nantasket Avenue,		1,063 45		
Repairs to buildings,		2,372 67		
Freight on gravel,		576 14		
Plumbing,		317 40		
Board walk, Wharf Avenue,		236 46		
Painting, buildings,		215 36		
Range,		179 50		
Electric wiring, café building,		59 00		
Inspection of electric wiring,		15 00		
Drain pipe rental,		6 00		
			13,631 29	
				76,506 07
				$93,105 25

Metropolitan Parks Trust Fund.

Balance Dec. 1, 1907,	$978 74

3 2044 103 101 358